

Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
Leydig, Voit & Mayer, Ltd.  
202-737-6770

## Fig. 1

10            20            30            40            50  
AUCACUCUUUUAAUCACAUACUCACAGUAACCUCAACUCCUGCCACAAUGUACAGGAU

70            80            90            100          110  
AACUCCUGUCUUGCAUUGCACUAAGUCUUGCACUUGUCACAAACAGUGCACCUACUUC,  
**ACGTGATT**CAGAAC**GTGAACAGT**GTTGTC  
77-91                      92-106

130            140            150            160          170  
GUUCUACAAAGAAAACACAGCUACAACUGGAGCAUUUACUGCUGGAUUUACAGAUGAU

190            200            210            220          230  
UGAAUGGAAUUUAUUACAAAGAAUCCAAACUCACCAGGAUGCUCACAUUUAGUU  
**ATGTTCTTAGGGTTT**|GAGTGGTCCTACGAG|GTGTAATTCAA  
198-212                      213-227                      228-242

250            260            270            280          290  
ACAUGCCCAAGAAGGCCCACAGAACUGAAACAUCUUCAGUGCUAGAAGAAGAACUAA  
**TGTACGGGTTCTTCCGG**                      **TCTTCTTGAGTT**  
243-257    287-301

310            320            330            340          350  
CUCUGGAGGAAGUGCUAAUUUAGCUAAAGCAAAACUUUCACUUAGACCCAGGGA  
**GAGACCTCCTCACGA**                              **GTGAATTCTGGGTCCT**  
302-316    342-356

370            380            390            400          410  
UAAUCAGCAAAUCAACGUAAUAGUUCUGGAACUAAAGGGAUCUGAAACAAACAUUCAU  
**ATTAGTCGTTA**  
357-371

430            440            450            460          470  
GUGAAUAUGCUGAUGAGACAGCAACCAUUGUAGAAUUUCUGAACAGAUGGAUUACCUU

490            500            510            520          530  
GUCAAAGCAUCAUCUACACACUAACUUGAUAAUUAAGUGCUUCCCACUUAAAACAUUAU

550            560            570            580          590          600  
GGCCUUCUAAUUUAUUAAAUAUUAAUUAAUUUAUUAUUGUUGAAUGUAUGGUUUGCUA

610            620            630            640          650          660  
CCUAUUGUAACUAUUAAUUCUAAUCUAAAACUAAAAUAUUGGAUCUUUUAUGAUUCUUL

670            680            690            700          710          720  
UUGUAAGCCCUAGGGCUCAAAAUGGGUUCACUUUUAUCCAAAAAAUAAAUAUUUAUU

730            740            750            760          770          780  
UGUUGAAUGUUAAAAUAGUAUCUAUGUAGAUUGGUAGAAAACUAUUAAUAAAUAUU

790            800  
AUAAAUAAAAAAAAC

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## Fig.2

10            20            30            40            50            60  
GAUCGUUAGCUUCUCCUGAUAAACUAUUUGCCUCACAUUGUCACUGCAAUCGACACCUA

70            80            90            100          110          120  
UUAAUGGGUCUCACCUCCAACUGCUUCCCCCUCUGUUUCUCCUGCUAGCAUGUGCCGGC  
GAGTGGAGGGTTGAC|GAAGGGGGAGACAAG|CG  
70-84                85-99

130          140          150          160          170          180  
AACUUUGUCCACGGACACAAGUGCGAUUAUCACCUUACAGGAGAUCAUAAAACUUUGAAC  
TTGAAACAGGTGC|CTGTGTTCACGCTAT|ACTTG  
119-133            134-148

190          200          210          220          230          240  
AGCCUCACAGAGCAGAAGACUCUGUGCACCGAGUUGACCGUAACAGACAUUUUGCUGCC  
TCGGAGTGTC|TCGTCTTCTGAGACA  
176-190            191-205

250          260          270          280          290          300  
UCCAAGAACACAACUGAGAAGGAAACCUUCUGCAGGGCUGCGACUGUGCUCCGGCAGUUC  
TGGAAAGACGTCCC|CGCTGACACGAGGCC  
265-279            280-294

310          320          330          340          350          360  
UACAGCCACCAUGAGAAGGACACUCGCUGCCUGGGUGCGACUGCACAGCAGUUCCACAGG

370          380          390          400          410          420  
CACAAAGCAGCUGAUCCGAUUCUGAAACGGCUCGACAGGAACCUCUGGGGCCUGGCAGGC  
GCTAAGGACTTGCC|GAGCTGTCTGGAG  
376-390            391-405

430          440          450          460          470          480  
UGAAAUUCCUGUCCUGUGAAGGAAGCCAACCAGAGUACGUUGGAAAACUUUCUUGGAAAGG

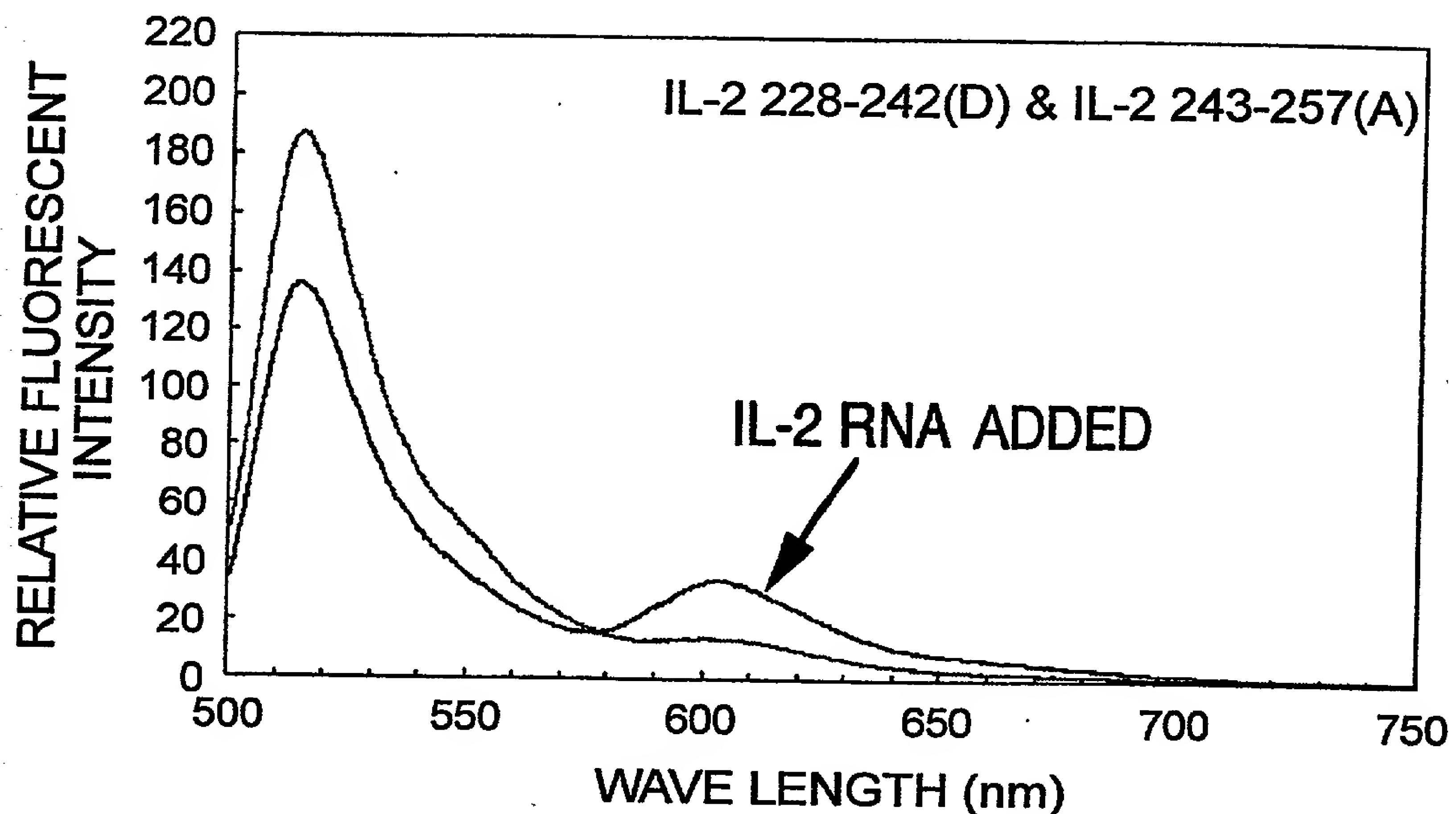
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550          560          570          580          590          600  
AGUUUUUGAUAGCUUUAUUUUUUAAGUAUUUAUUAUUAACUCAUAAAUAAG

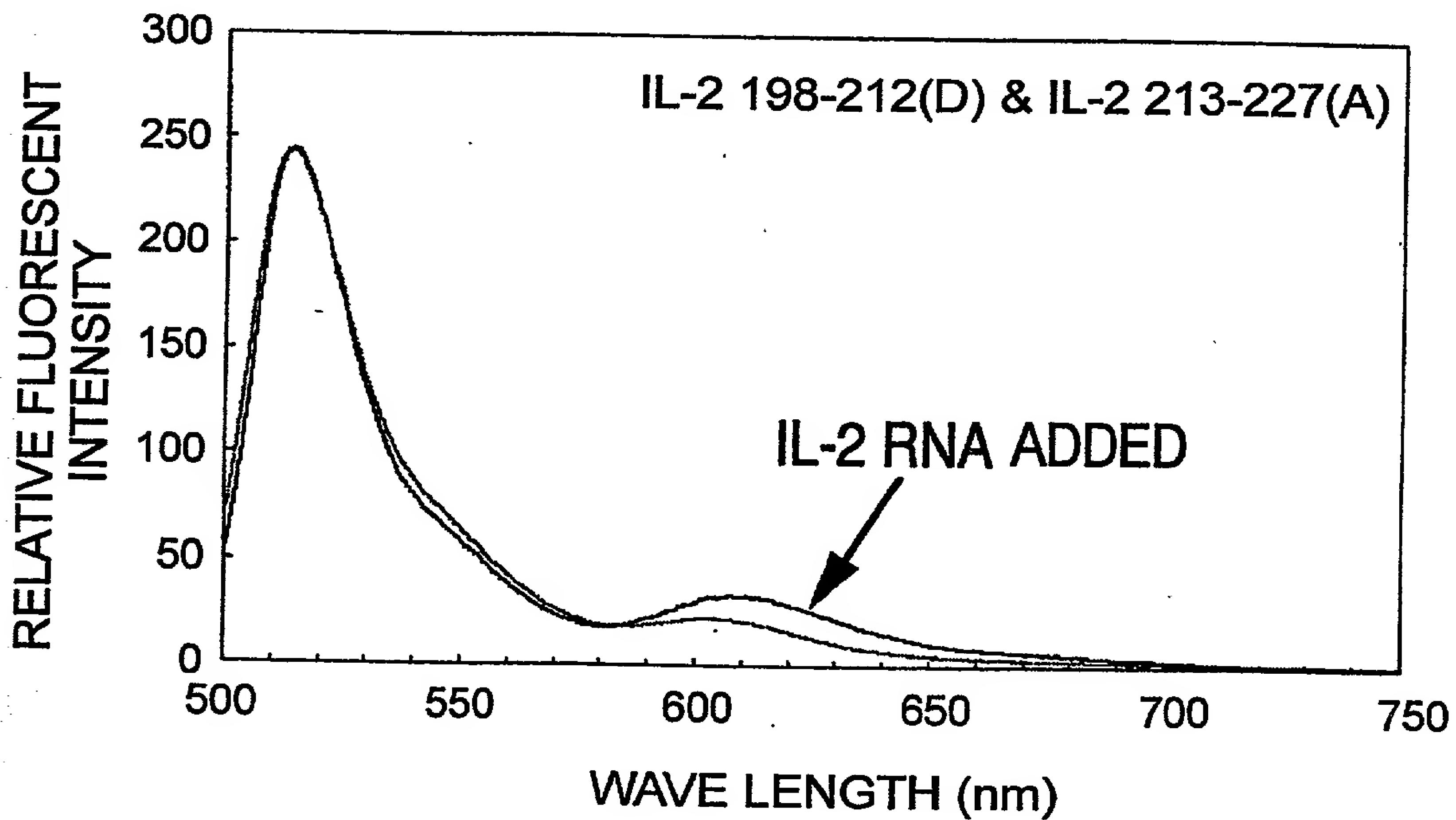
610  
UAUAUAUAGAAUCUAAA

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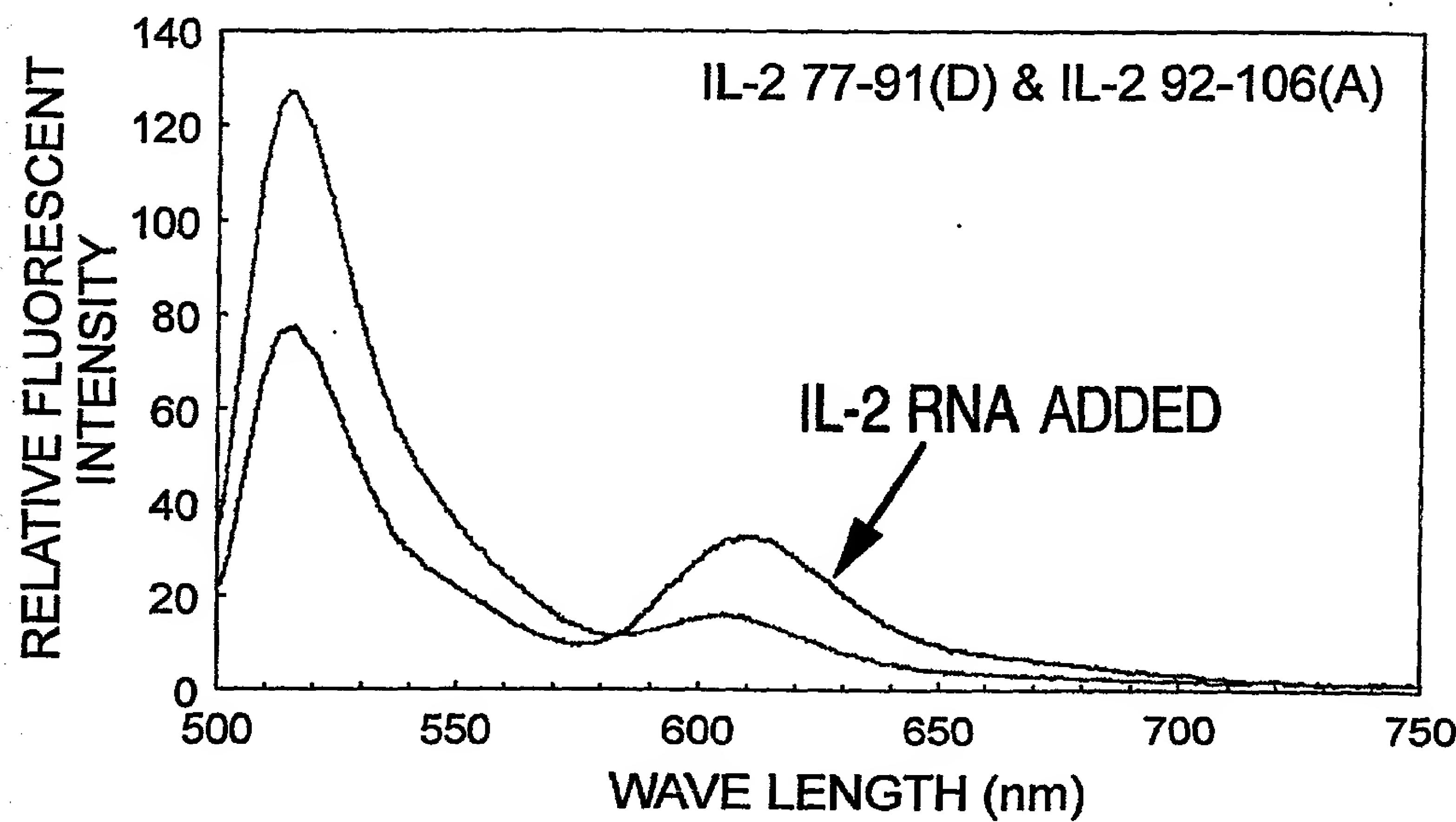
**Fig.3**



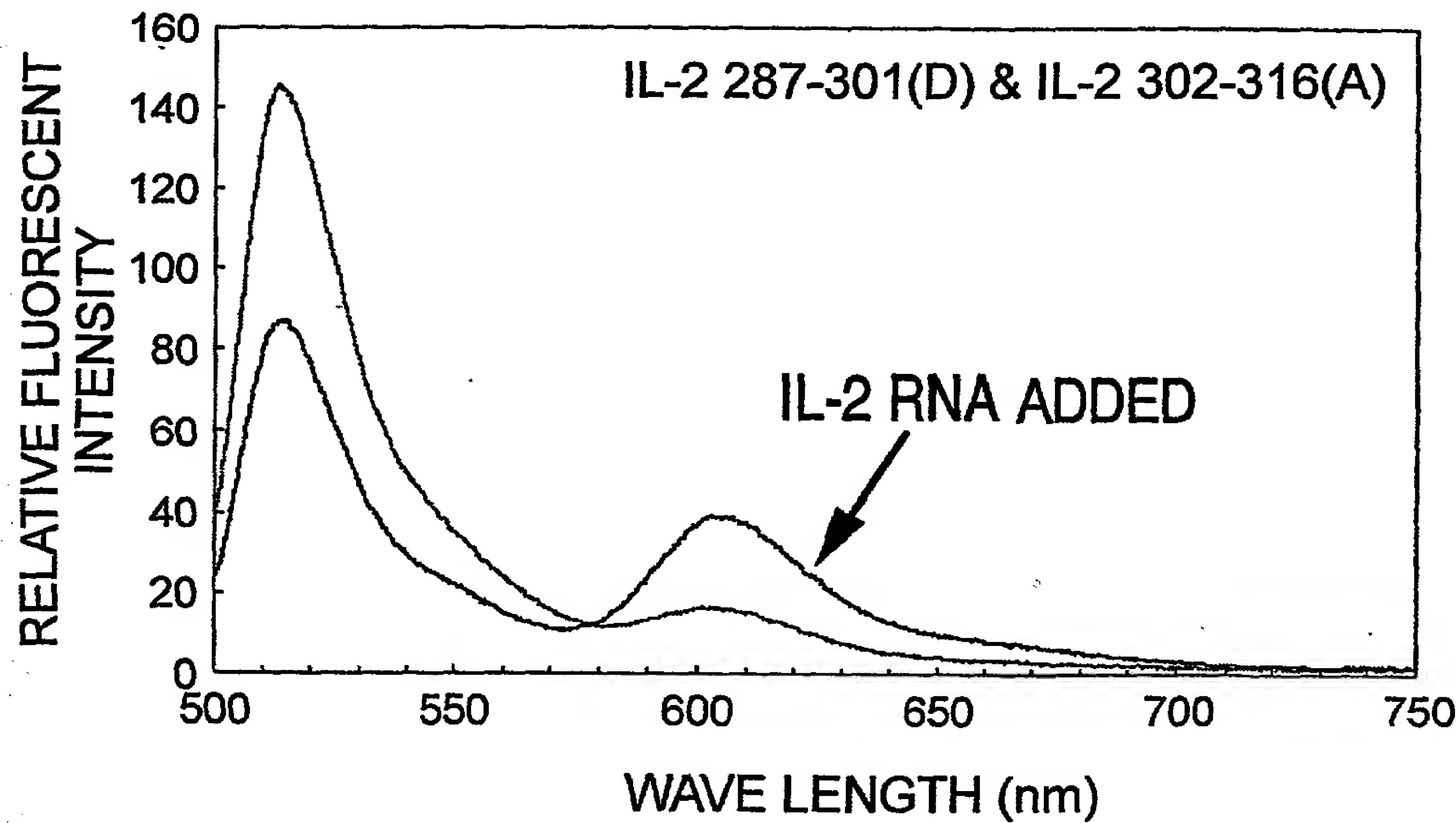
**Fig.4**



**Fig.5**

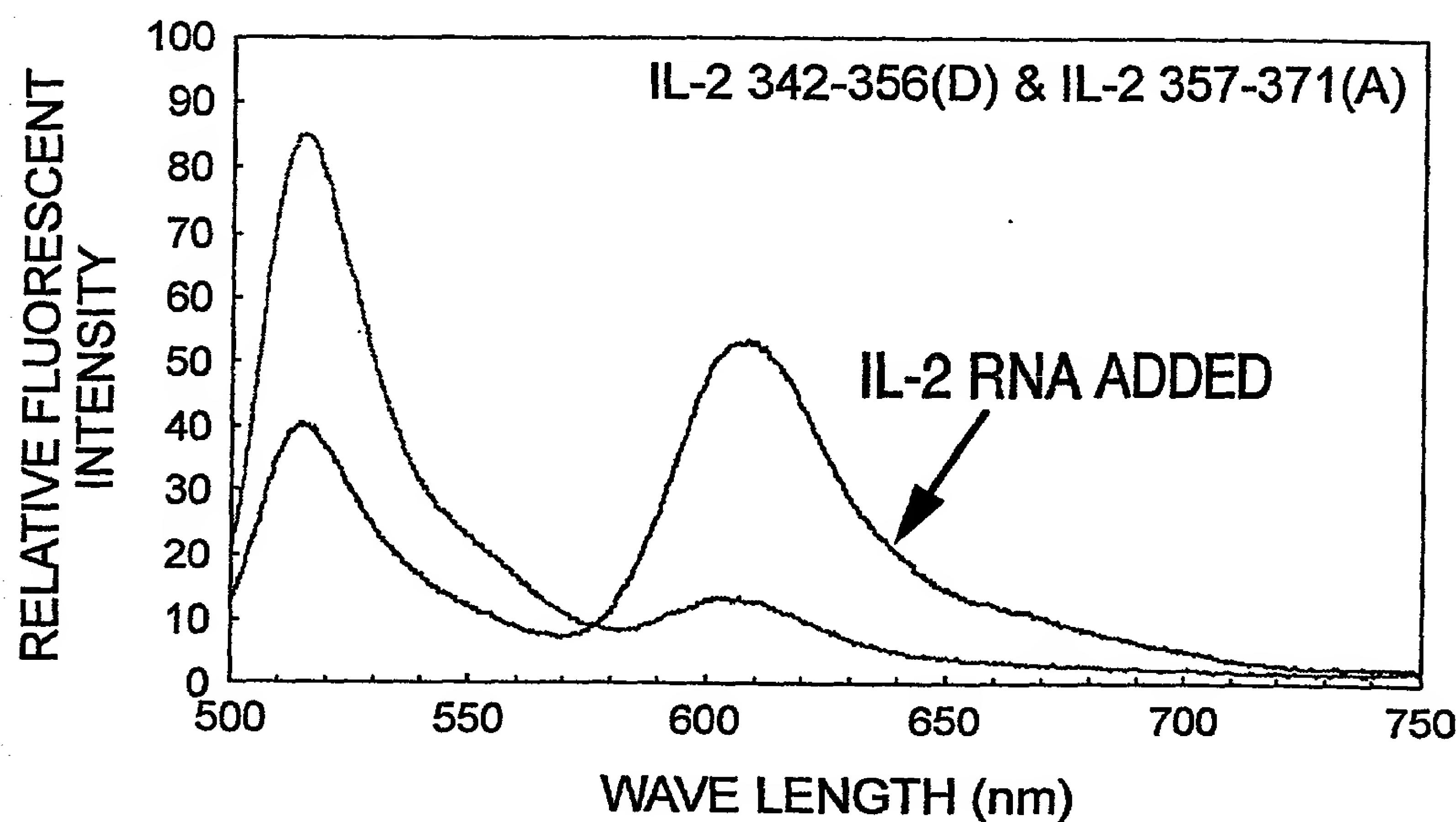


**Fig.6**



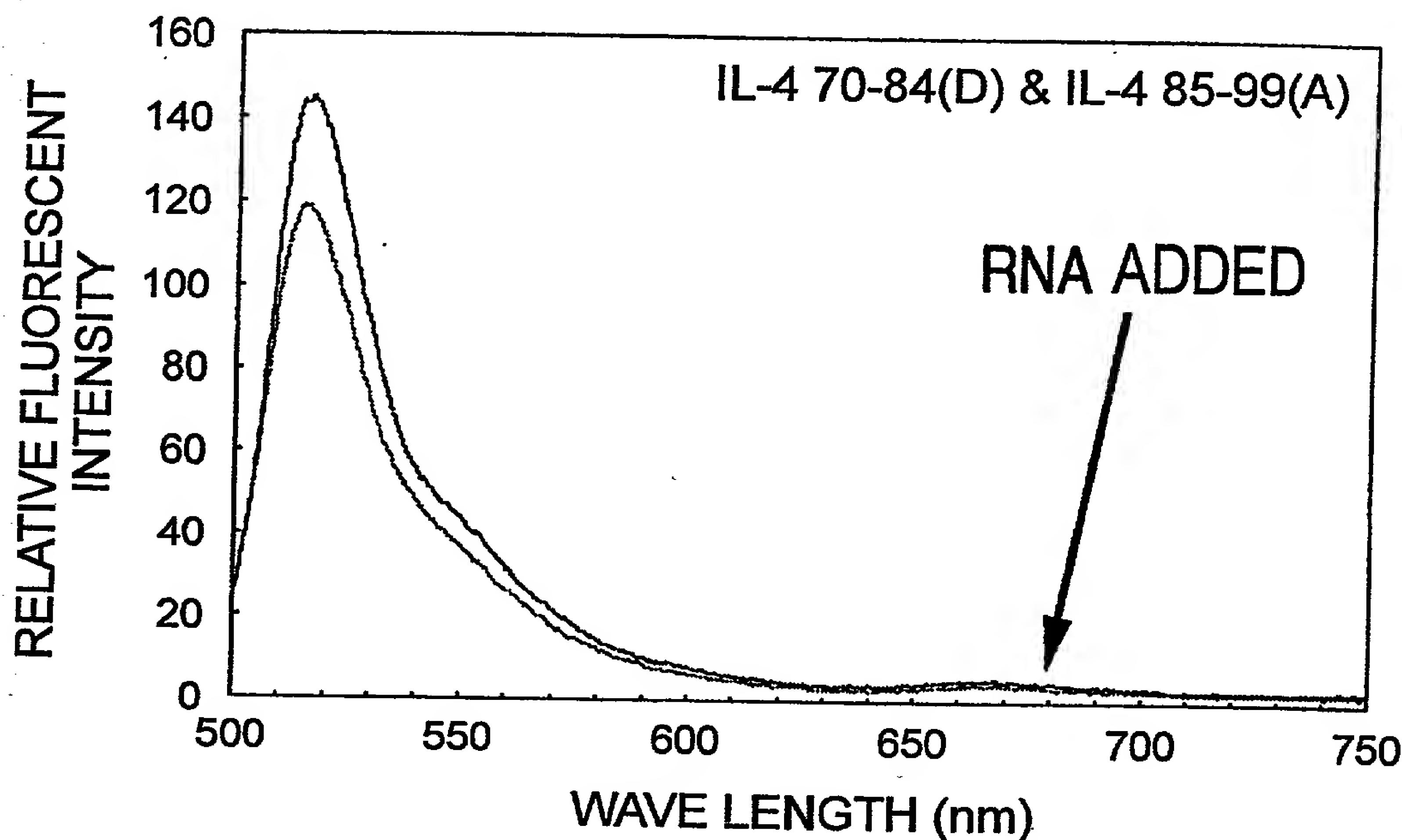
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**Fig.7**

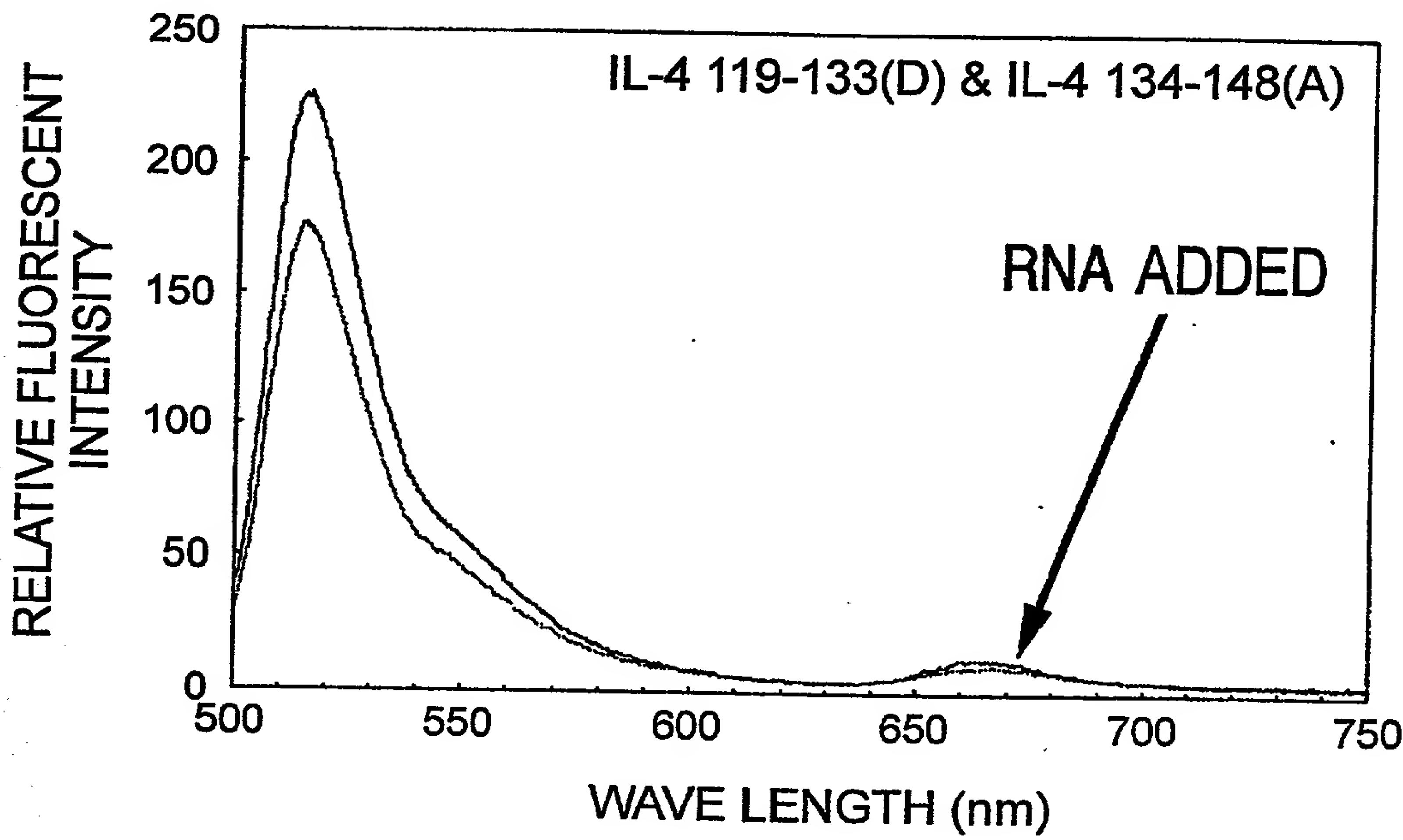


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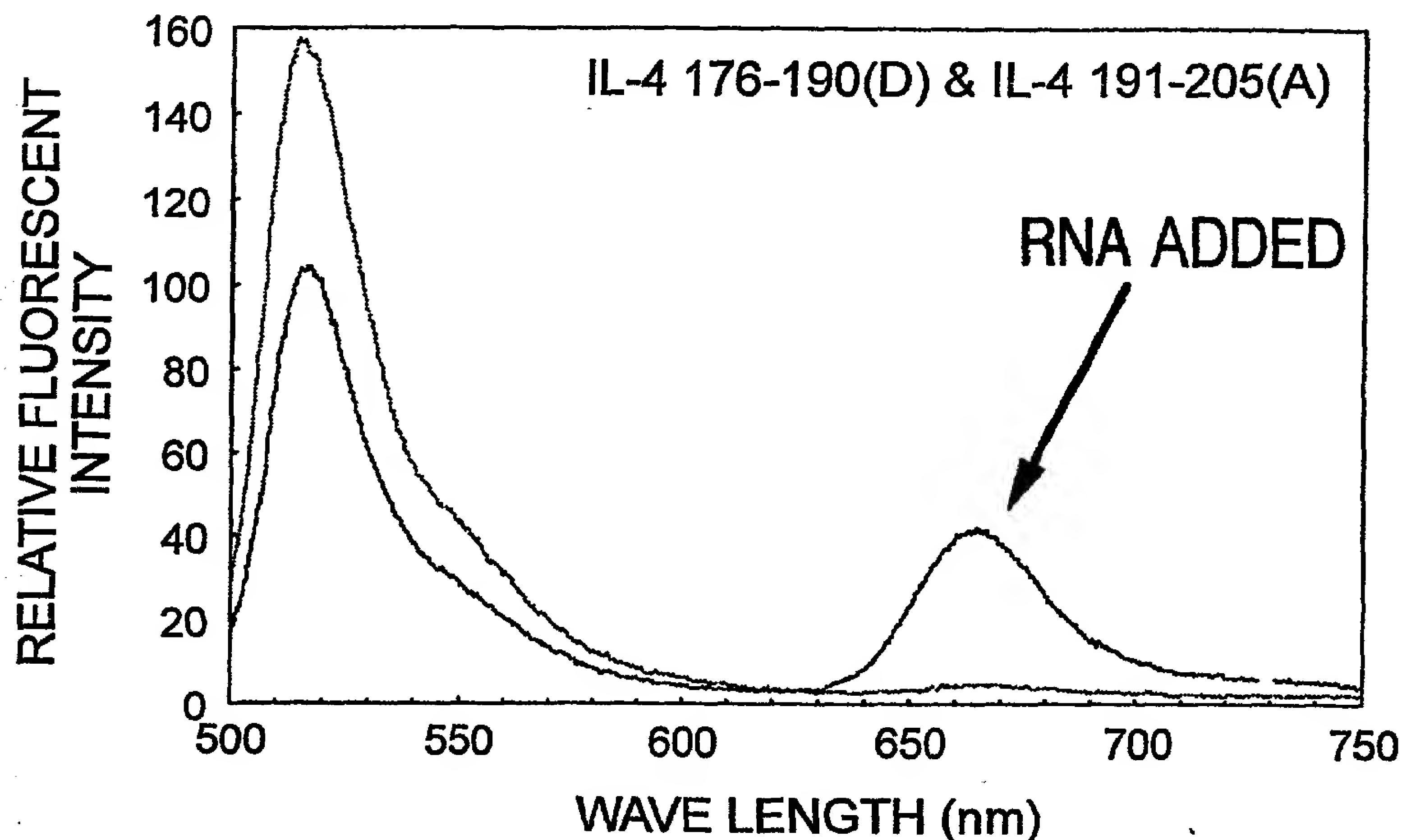
**Fig. 8**



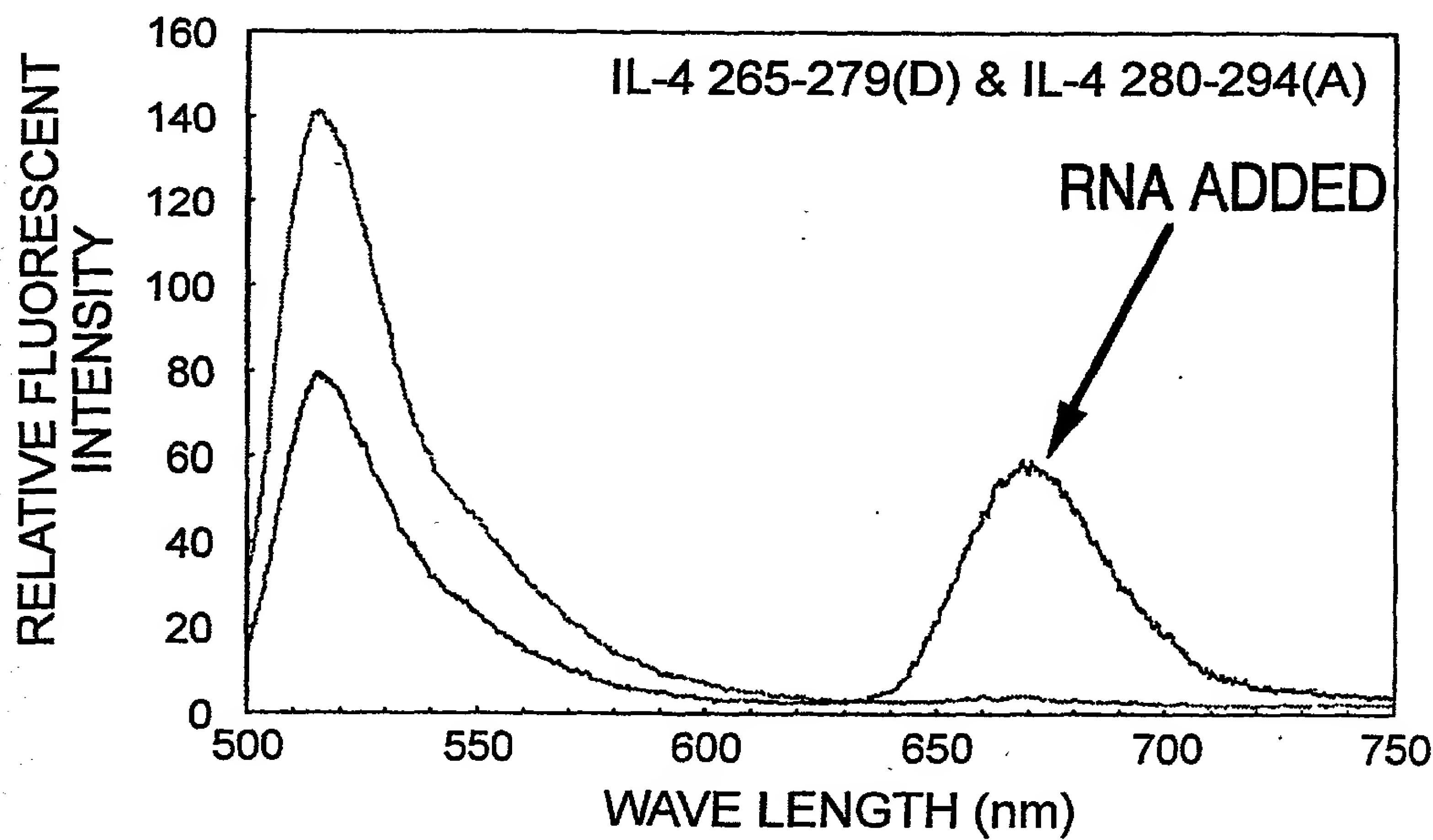
**Fig. 9**



**Fig.10**

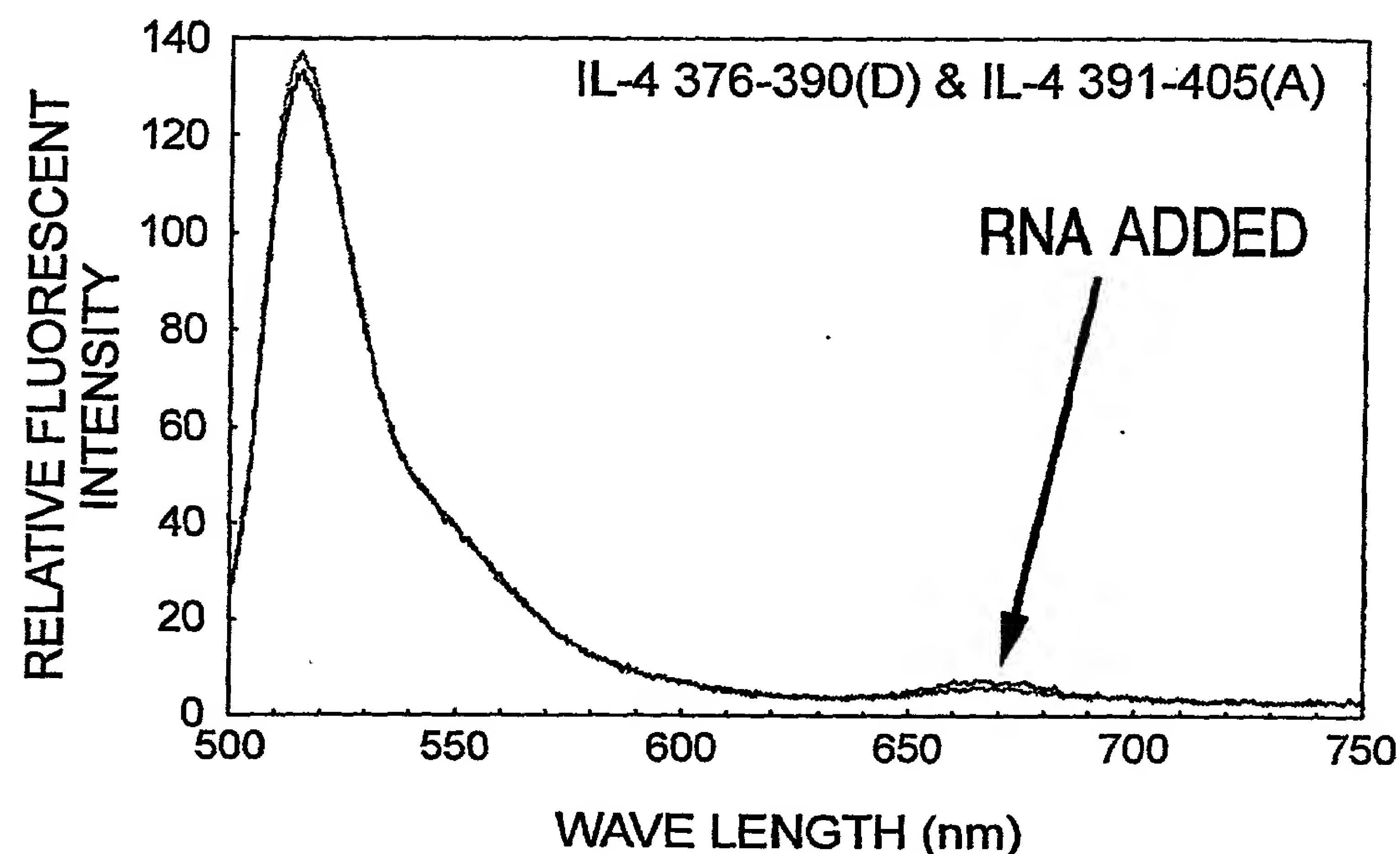


**Fig.11**



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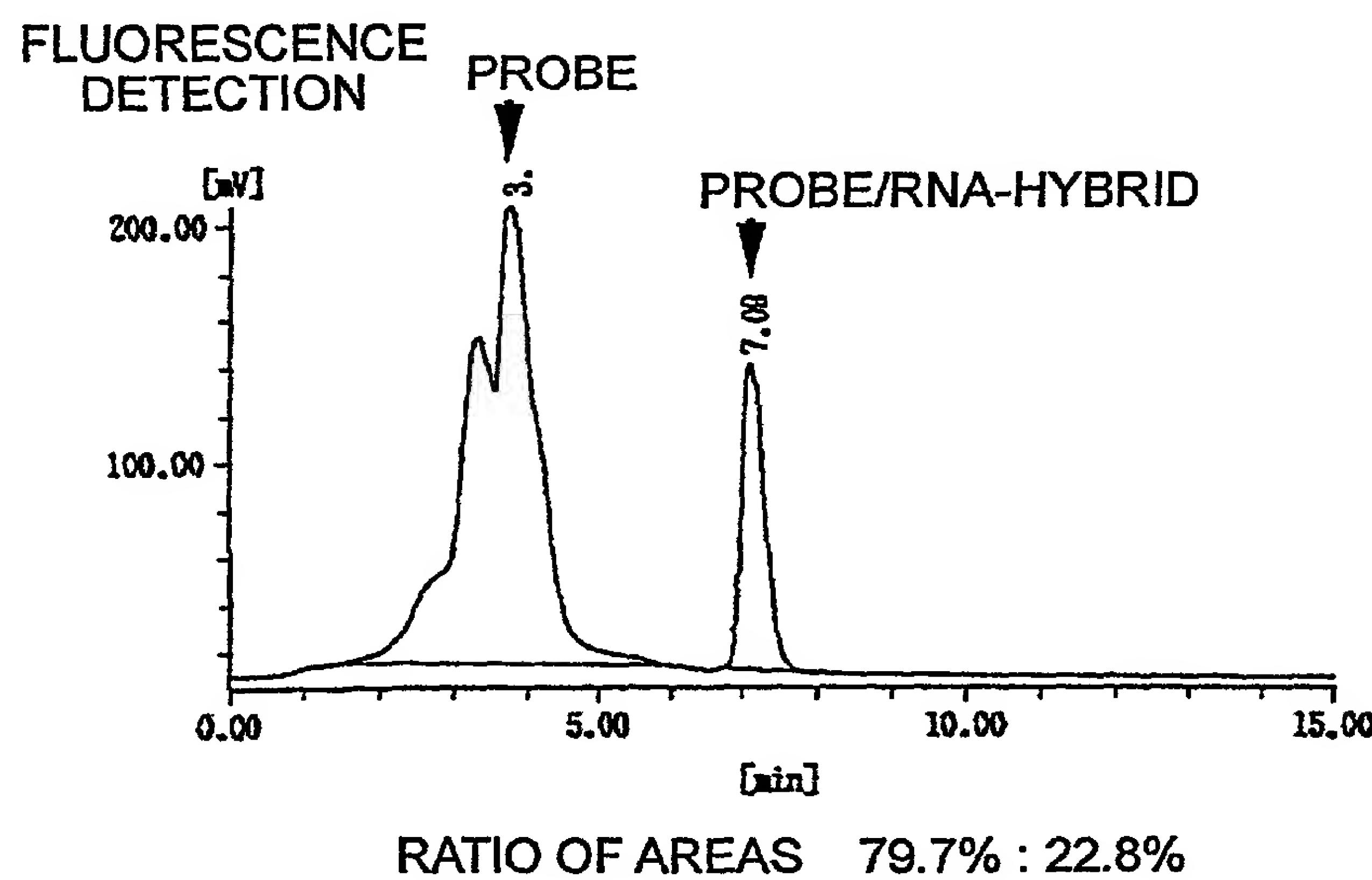
**Fig.12**



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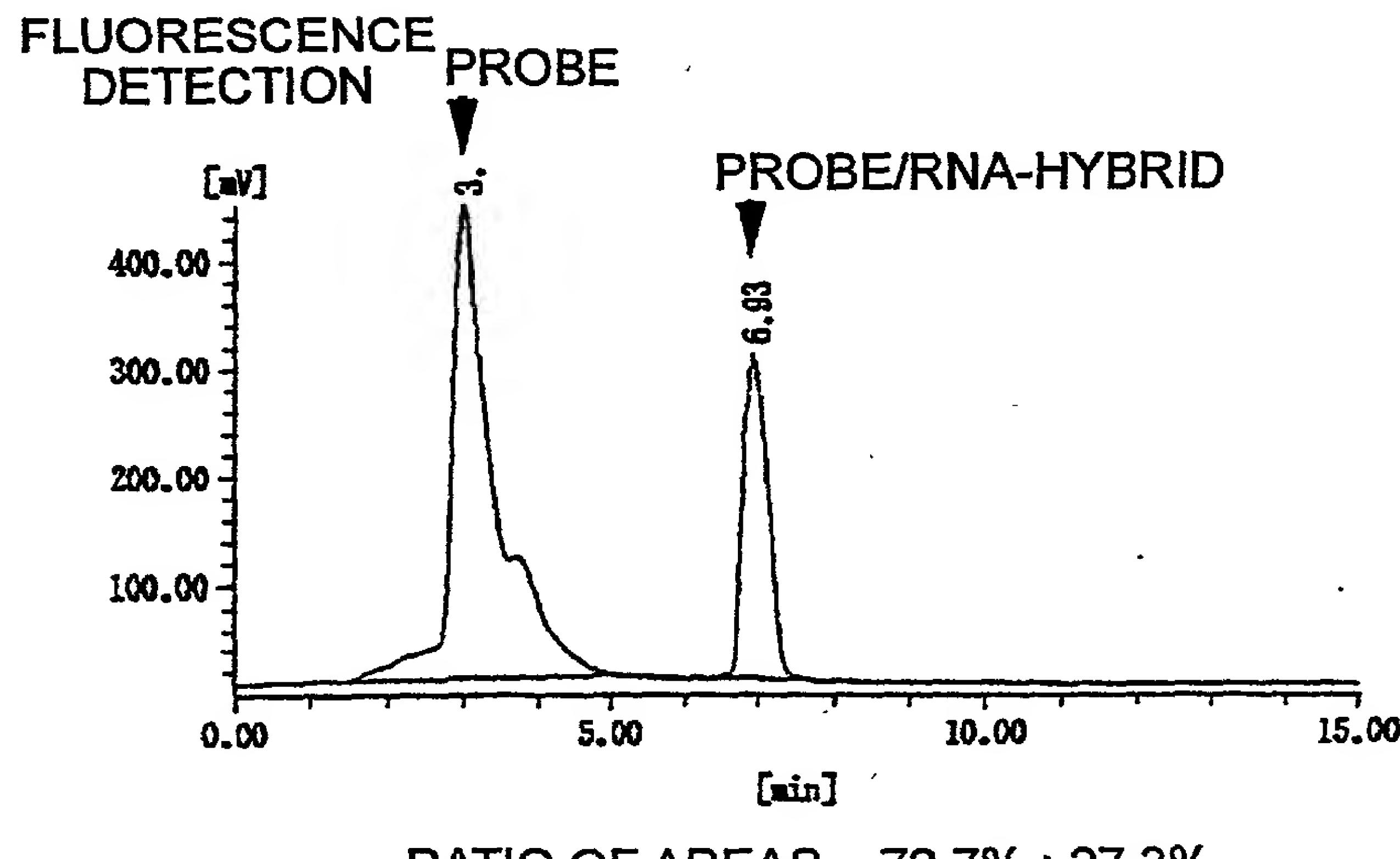
**Fig.13**

IL-2 342-356



**Fig.14**

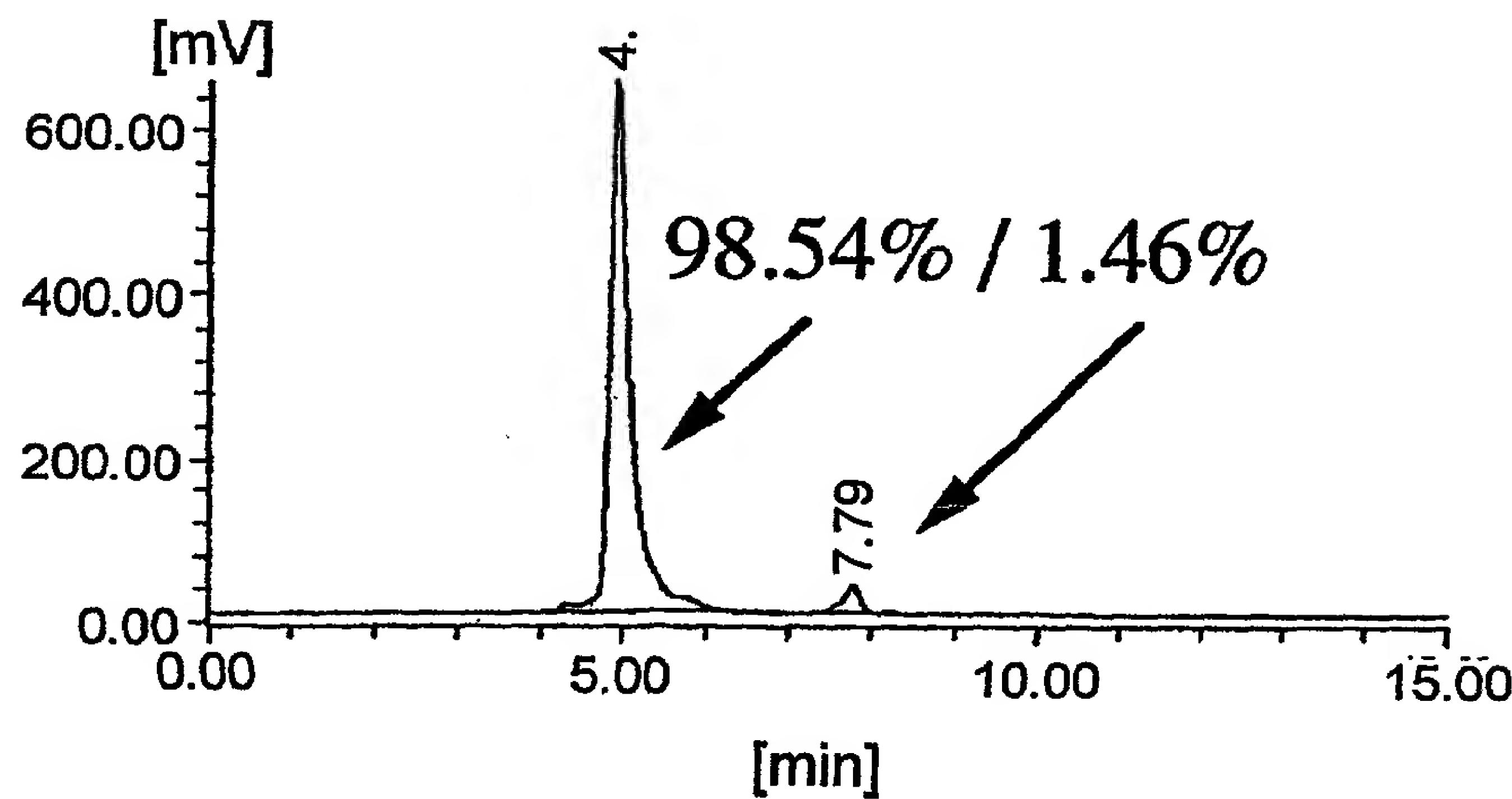
IL-2 357-371



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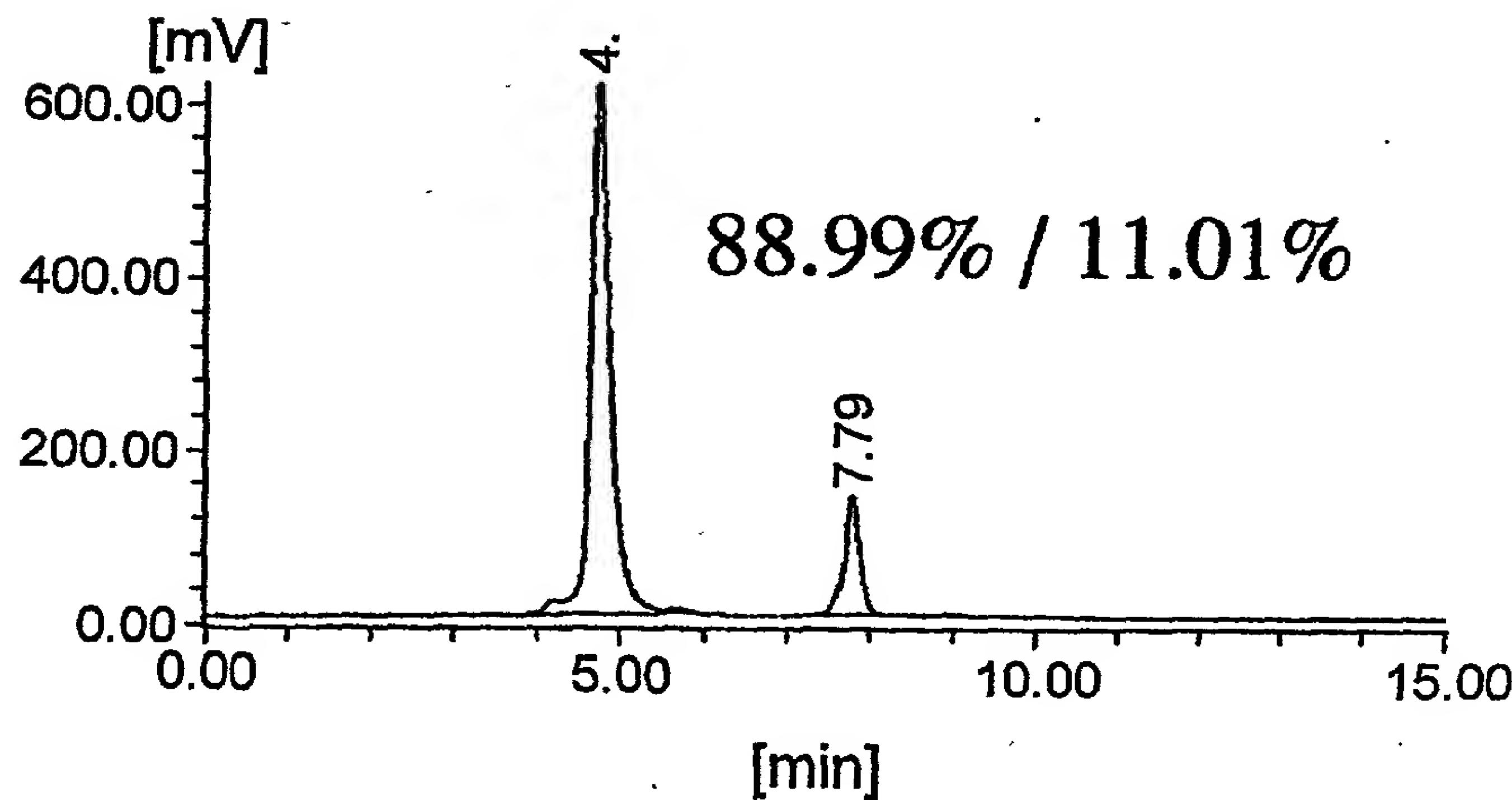
**Fig.15**

IL-4 119-133



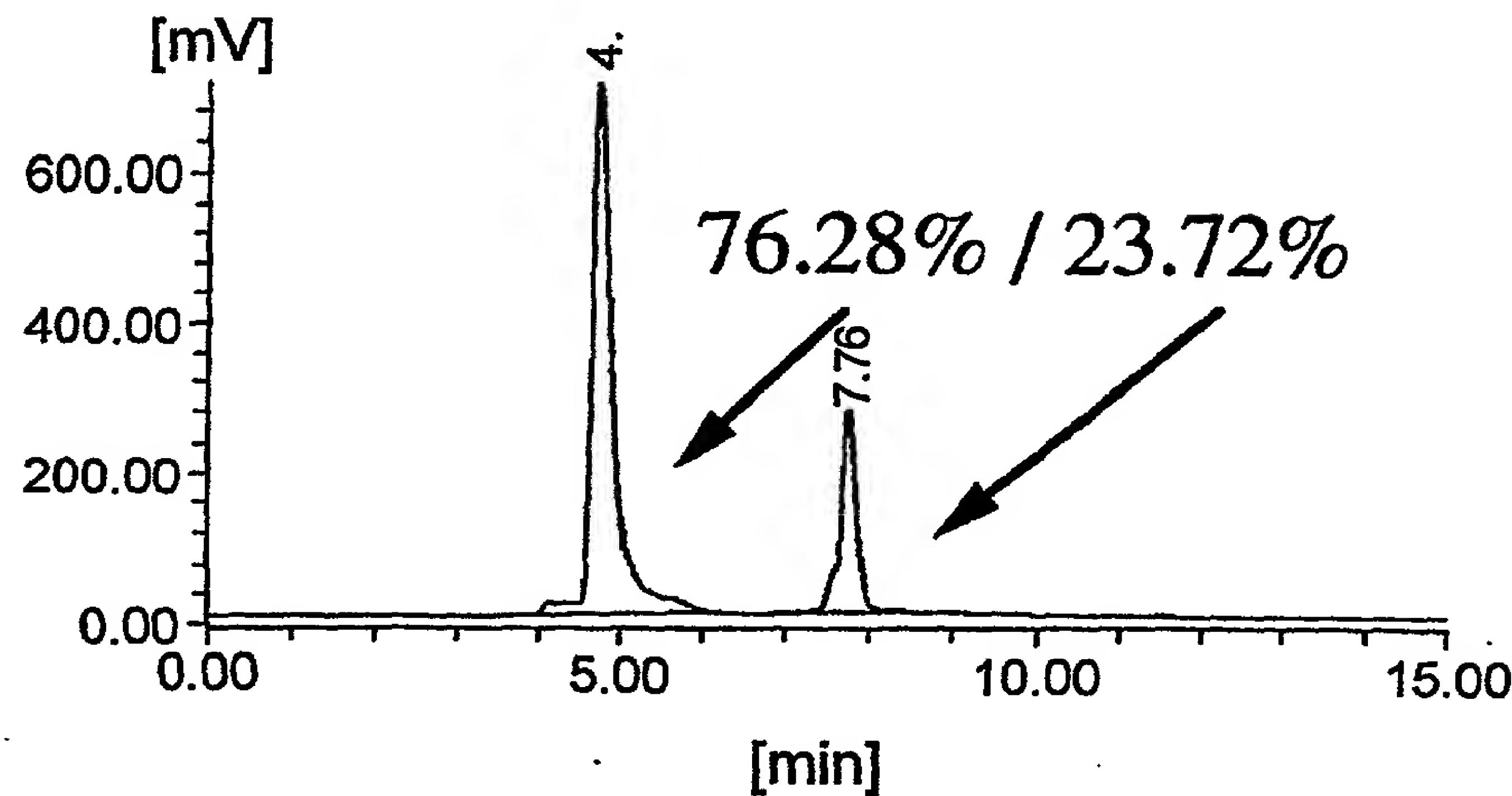
**Fig.16**

IL-4 134-148



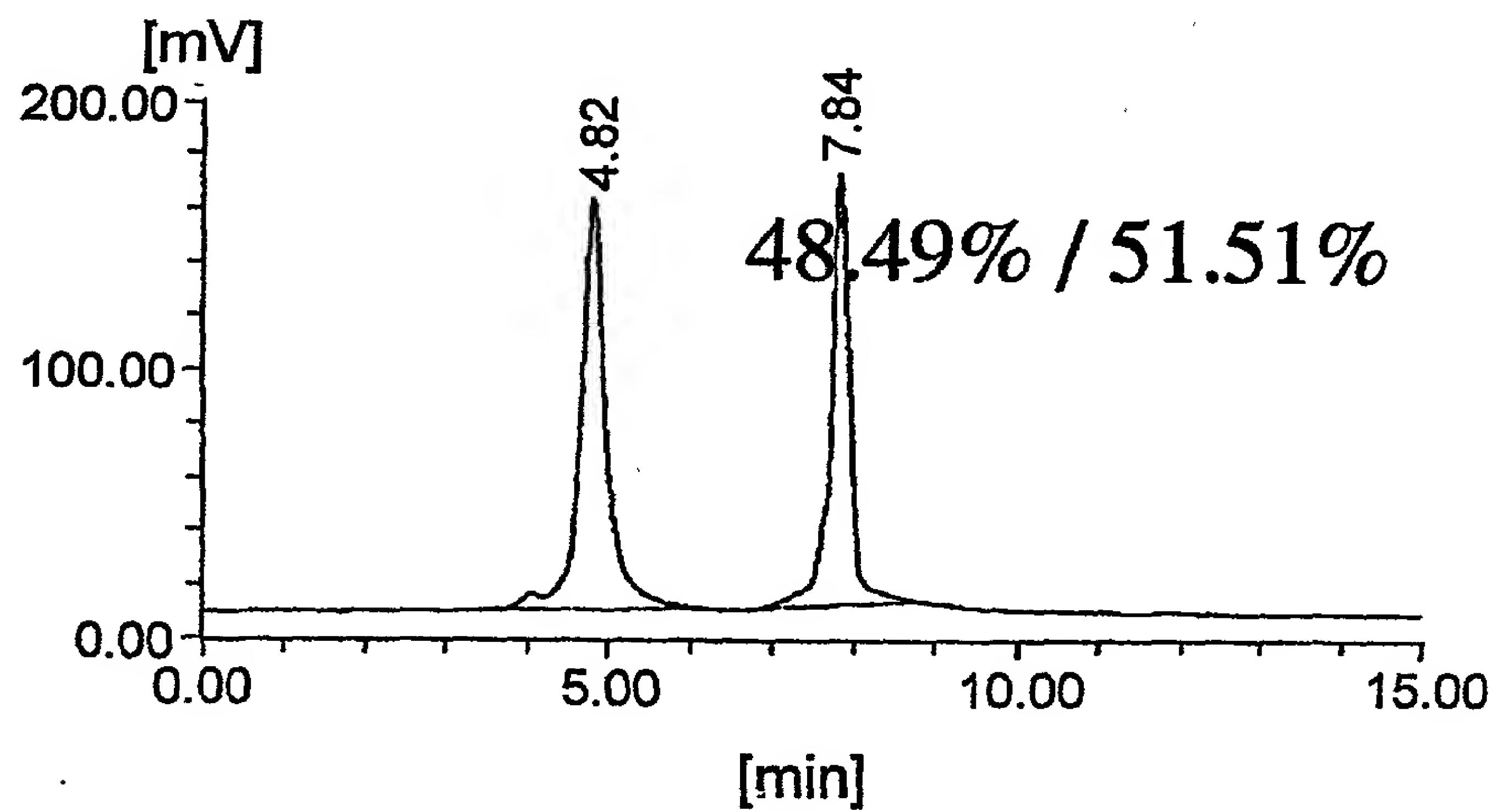
**Fig.17**

IL-4 265-279

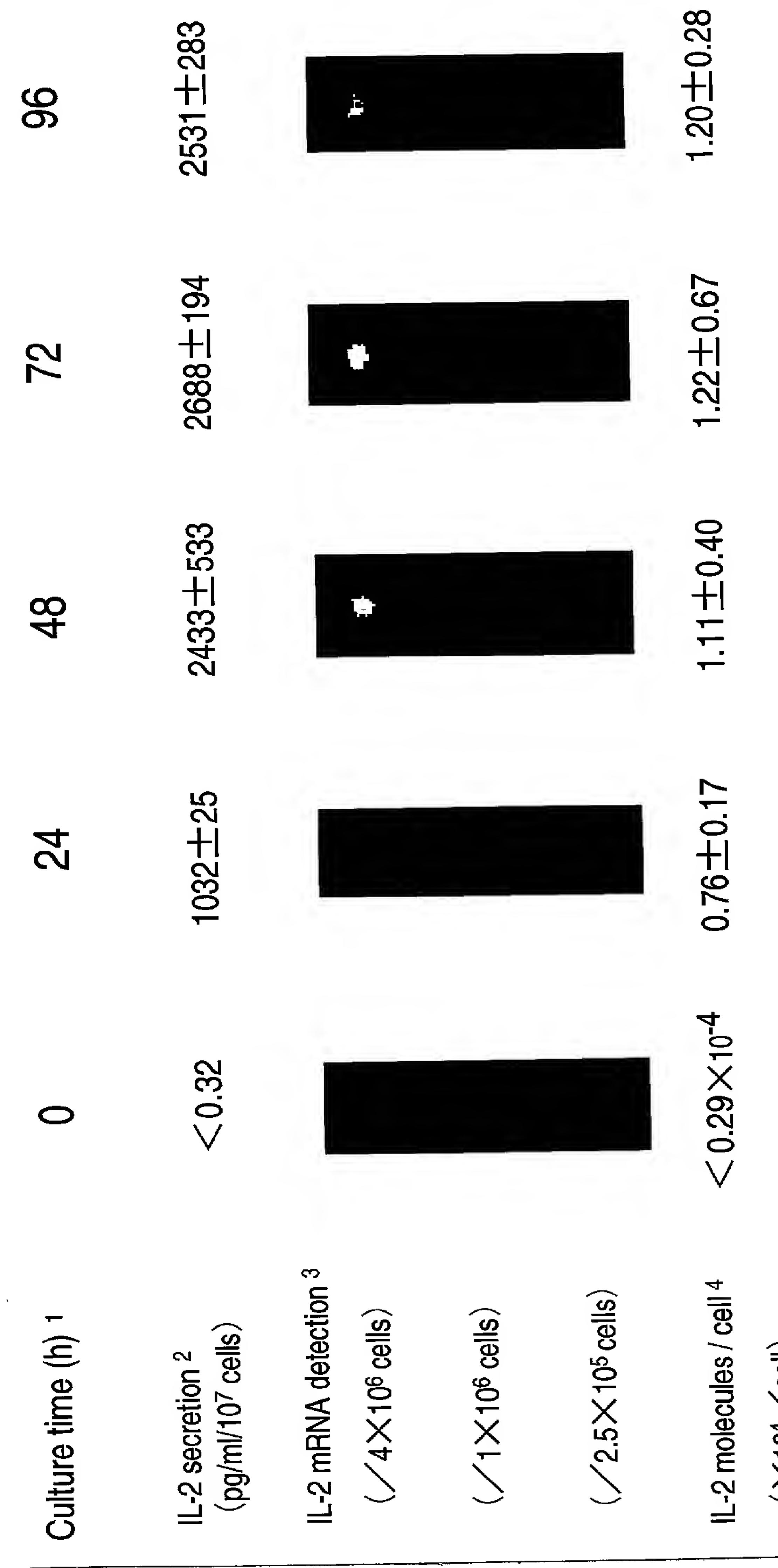


**Fig.18**

IL-4 280-294



**Fig. 19**



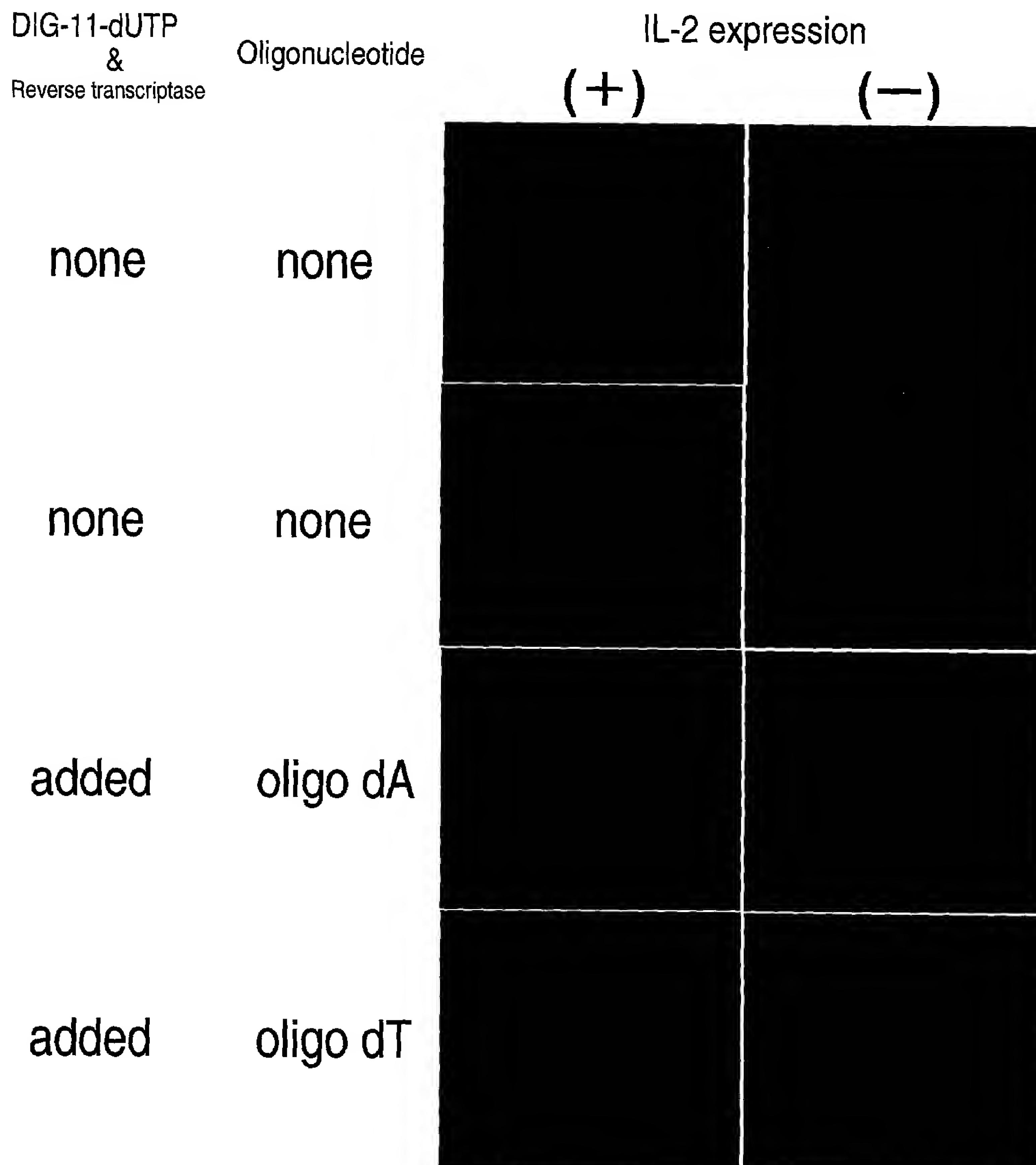
1 Time after adding 10 nM PMA, 0.5 mg/ml anti-human CD3 antibody and anti-human CD28 antibody to cultured Jurkat E6-1 cells

2 The concentration of IL-2 in the culture supernatants measured by ELISA using anti-human IL-2 antibody

3, 4 Determination of cellular IL-2 expression level by dot blotting using RNA probe complementary to human IL-2 mRNA

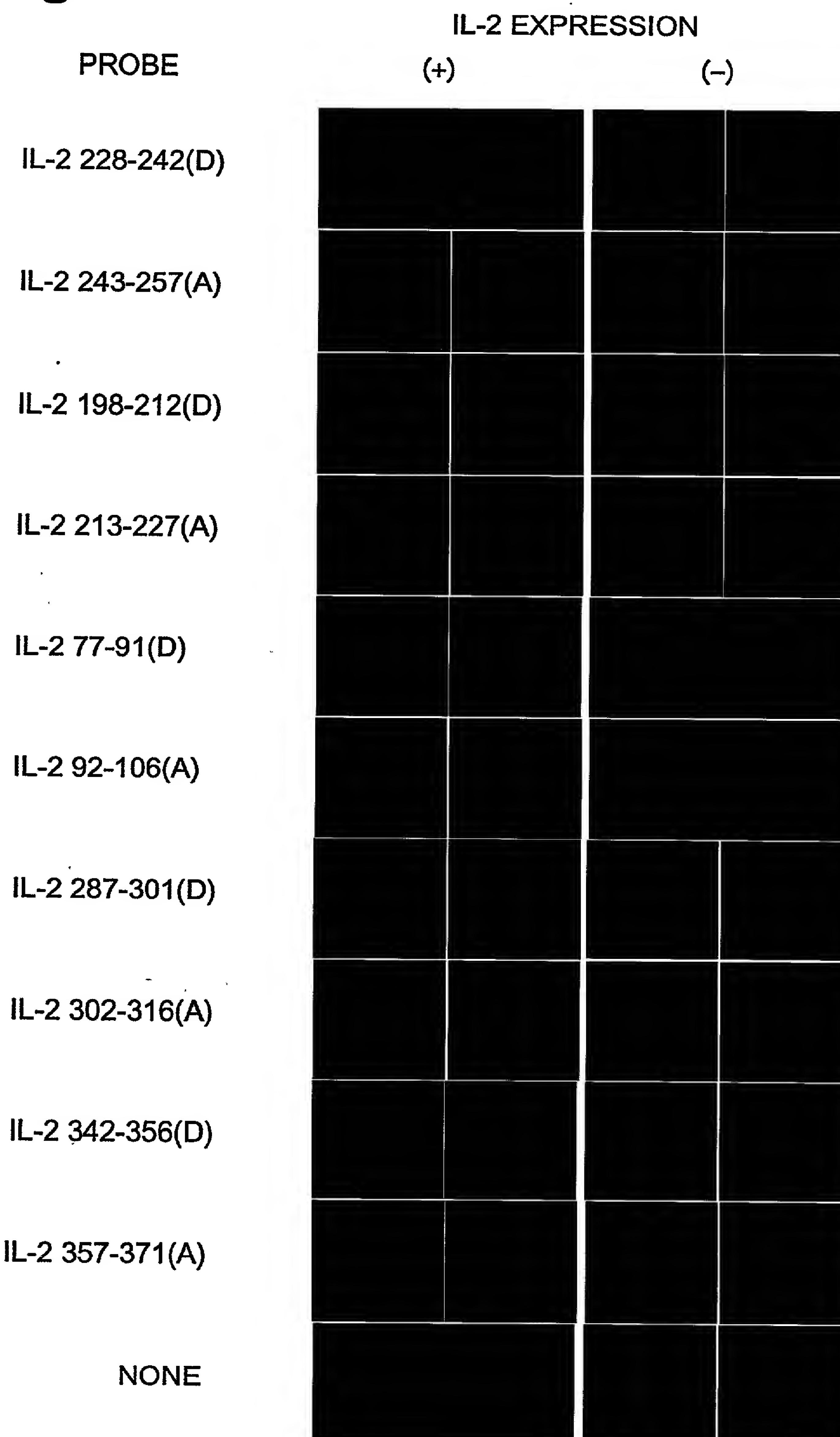
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## Fig.20



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**Fig.21**



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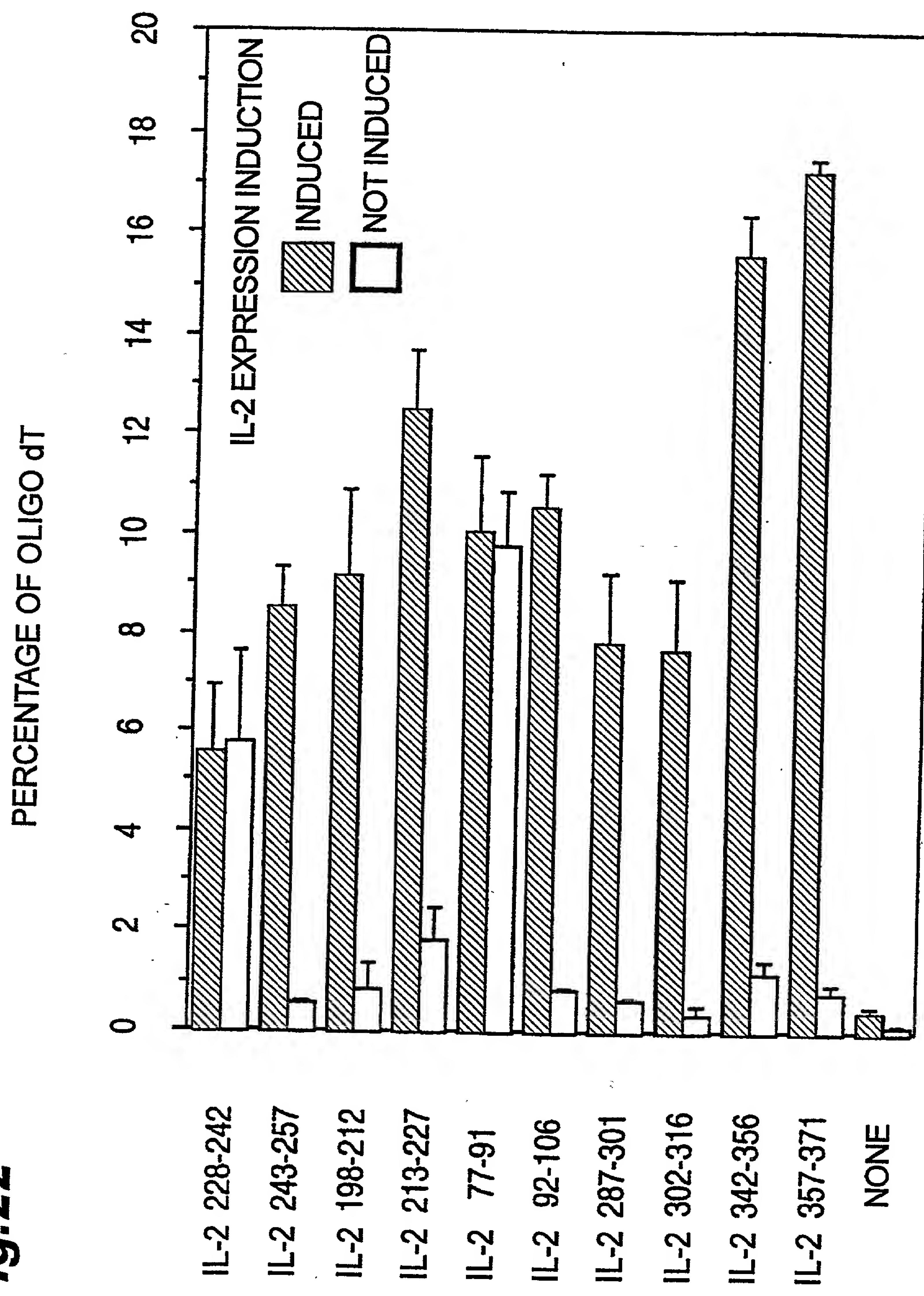
Inventors: ISHIBASHI et al.

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**Fig. 22**



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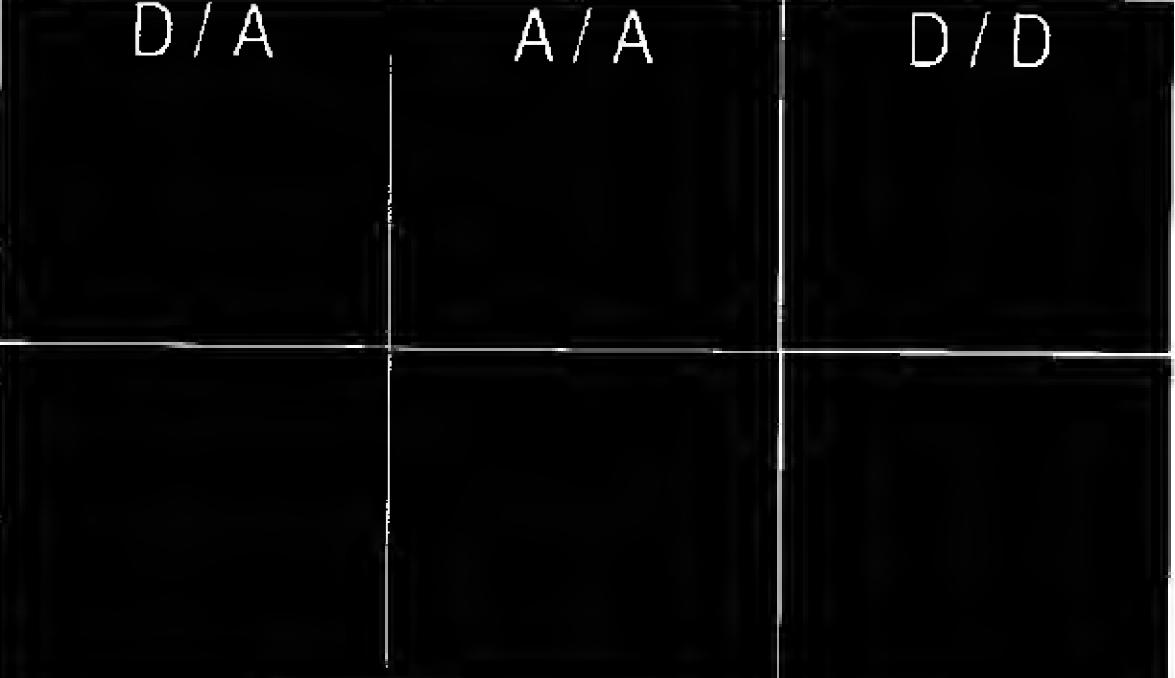
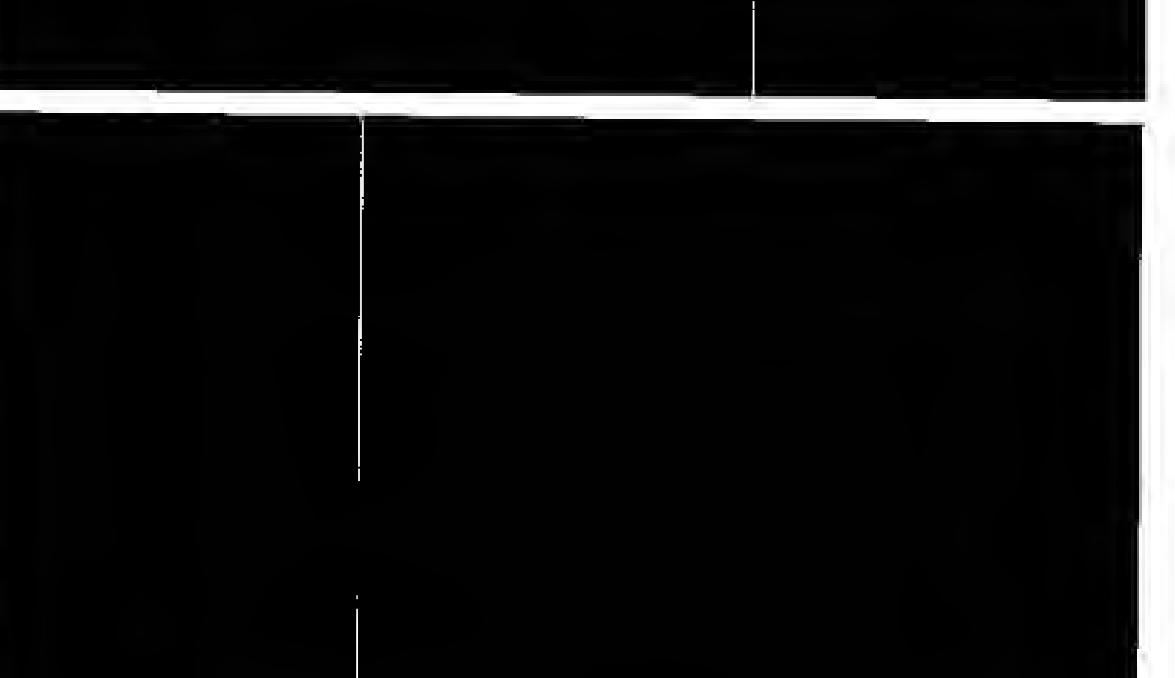
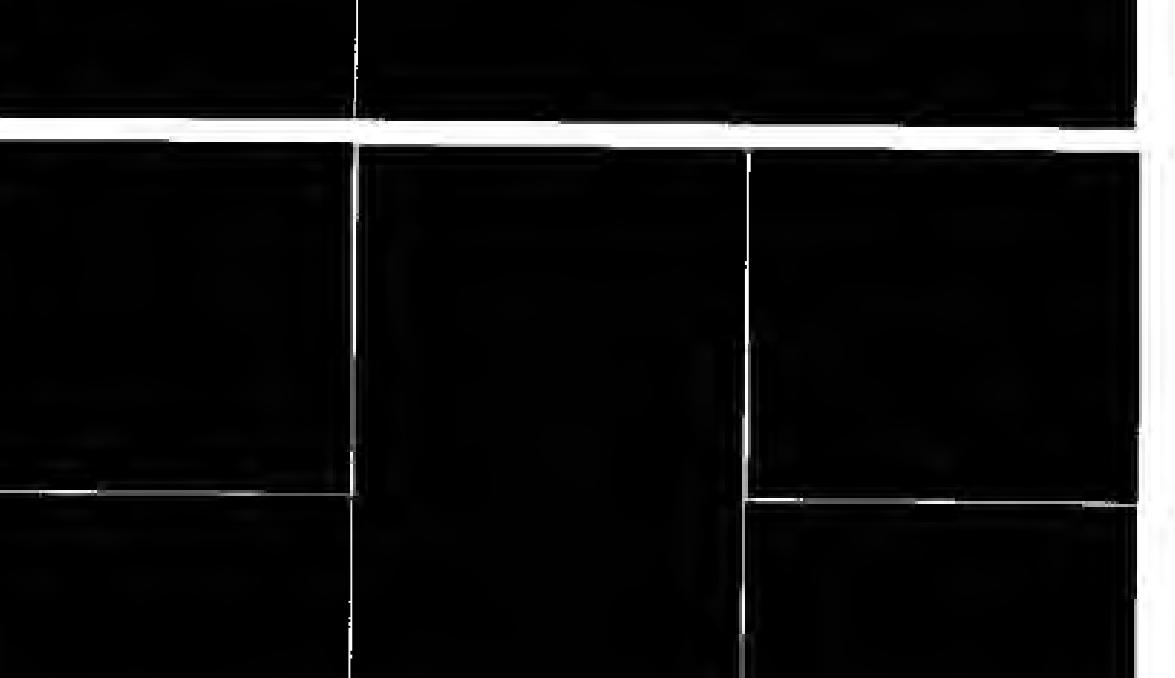
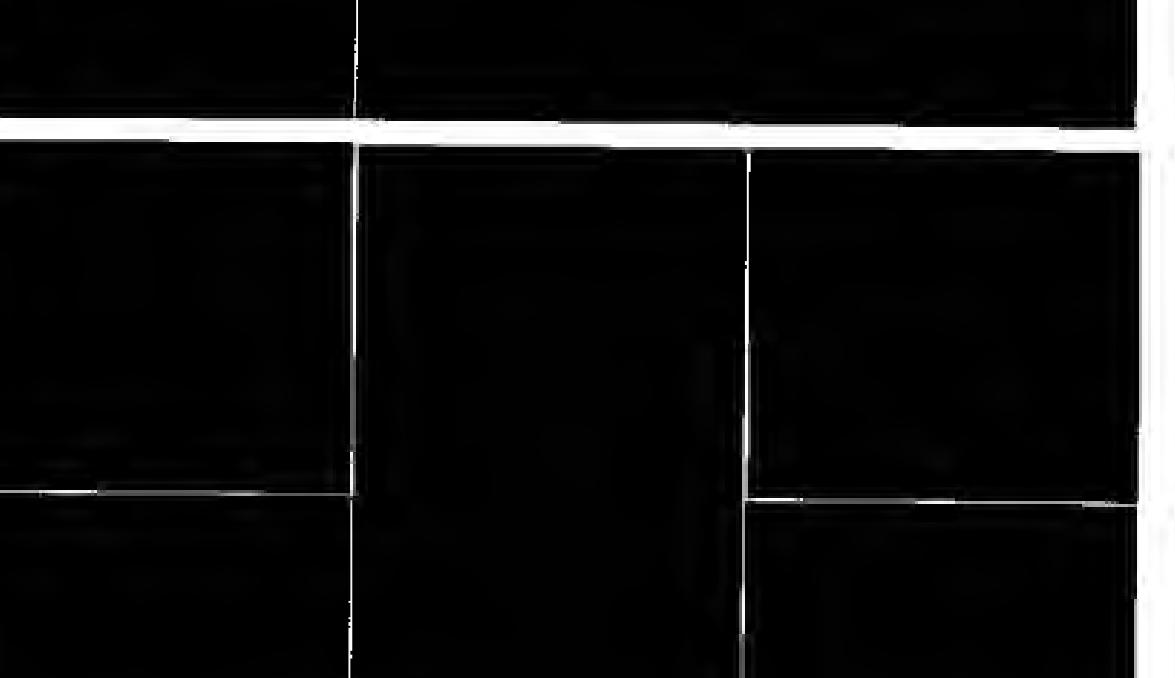
Atty Docket No.: 400684/SOEI

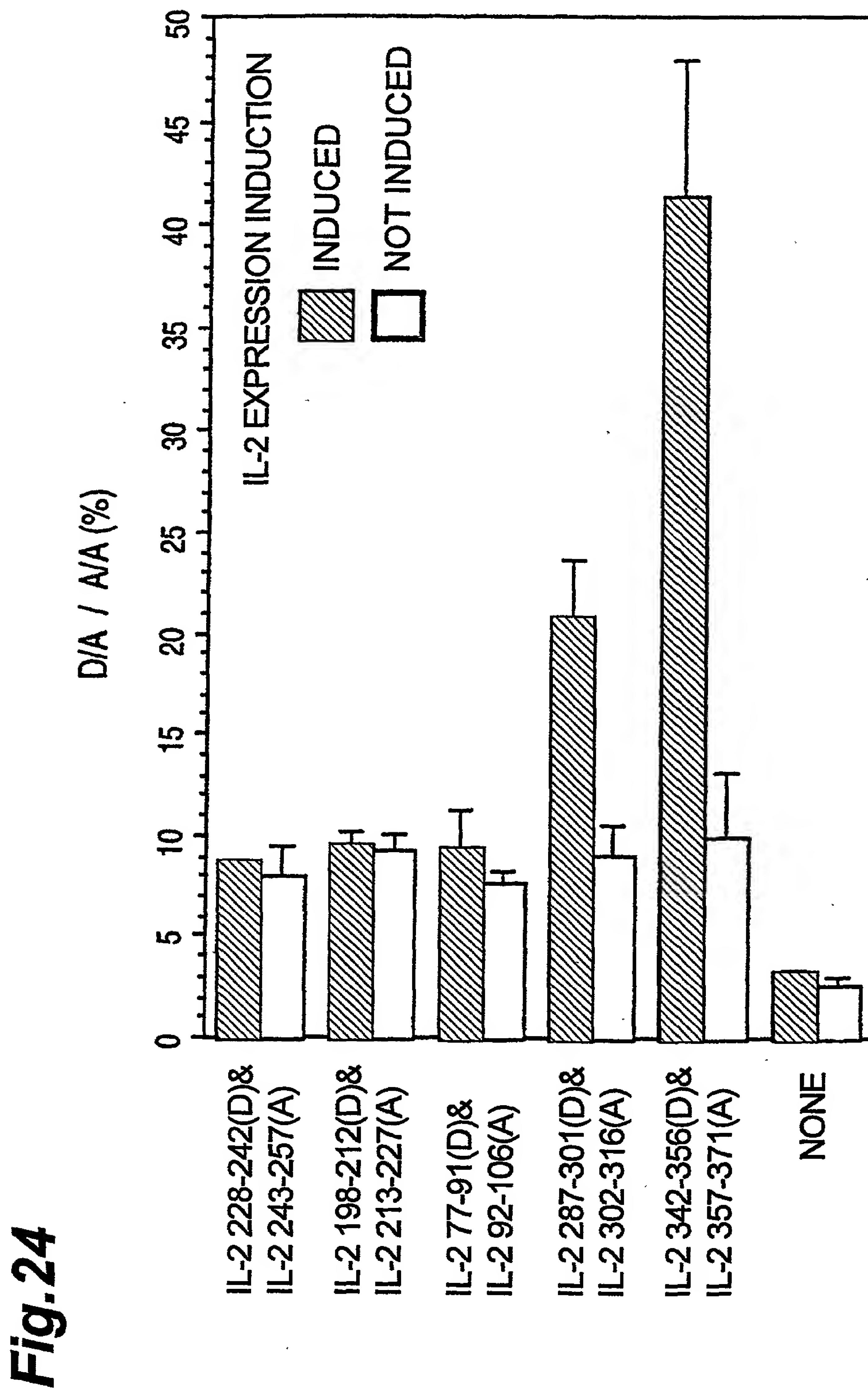
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## Fig. 23

### IL-2 EXPRESSION

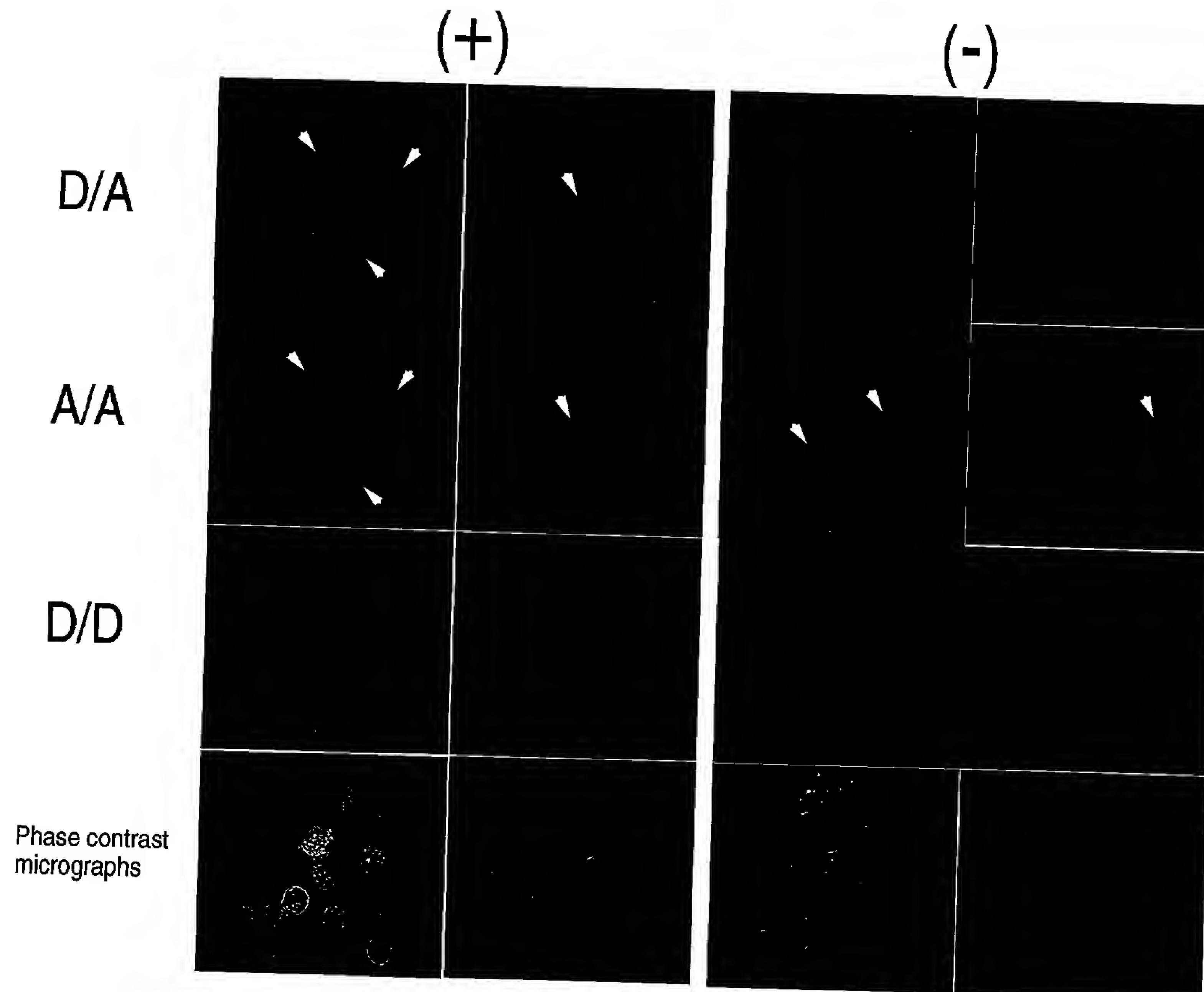
PROBE	(+)	(-)	
IL-2 228-242(D) & IL-2 243-257(A)	D/A 	A/A 	D/D 
IL-2 198-212(D) & IL-2 213-227(A)	D/A 	A/A 	D/D 
IL-2 77-91(D) & IL-2 92-106(A)	D/A 	A/A 	D/D 
IL-2 287-301(D) & IL-2 302-316(A)	D/A 	A/A 	D/D 
IL-2 342-356(D) & IL-2 357-371(A)	D/A 	A/A 	D/D 
NONE & NONE	D/A 	A/A 	D/D 



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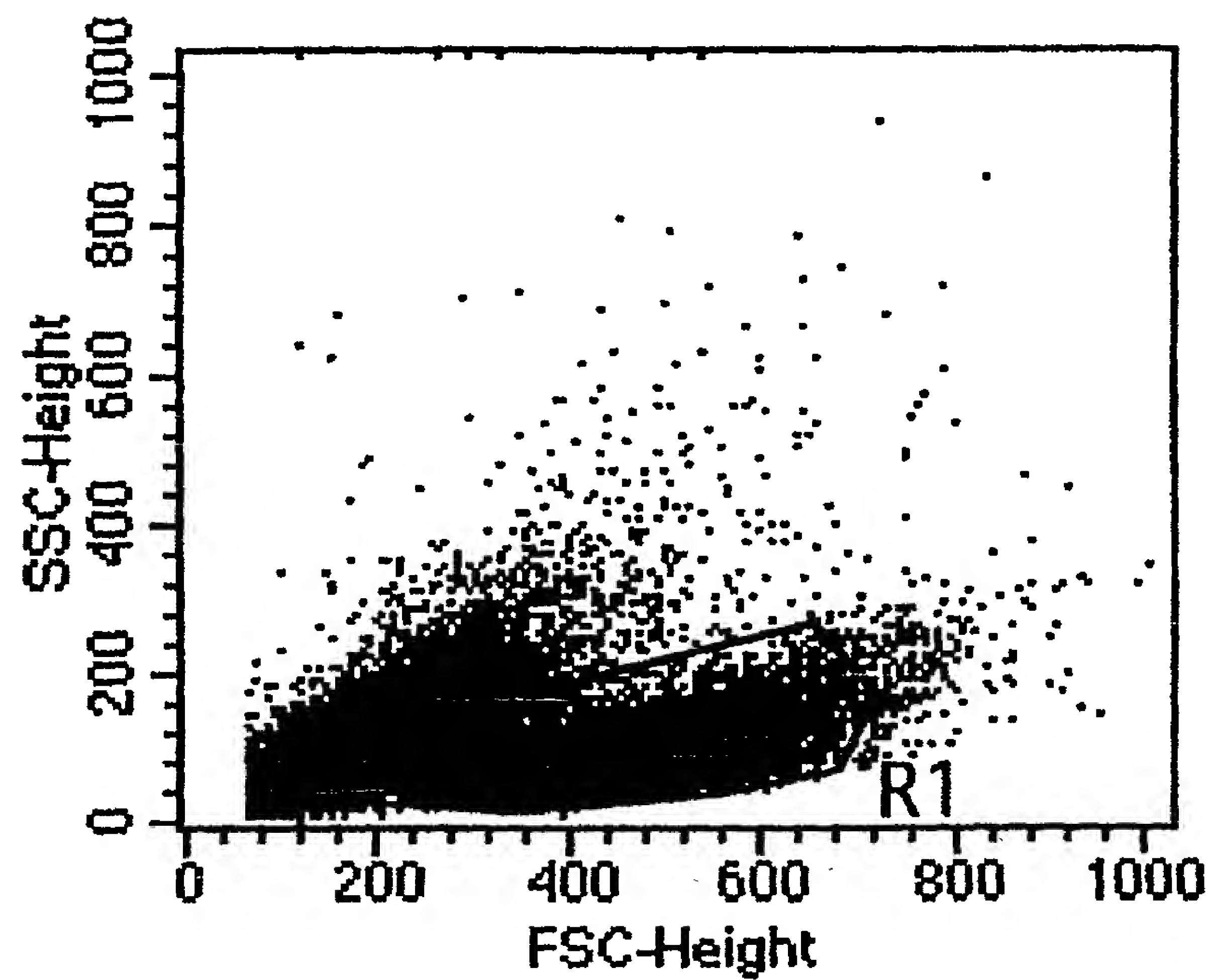
## Fig.25

### IL-2 expression

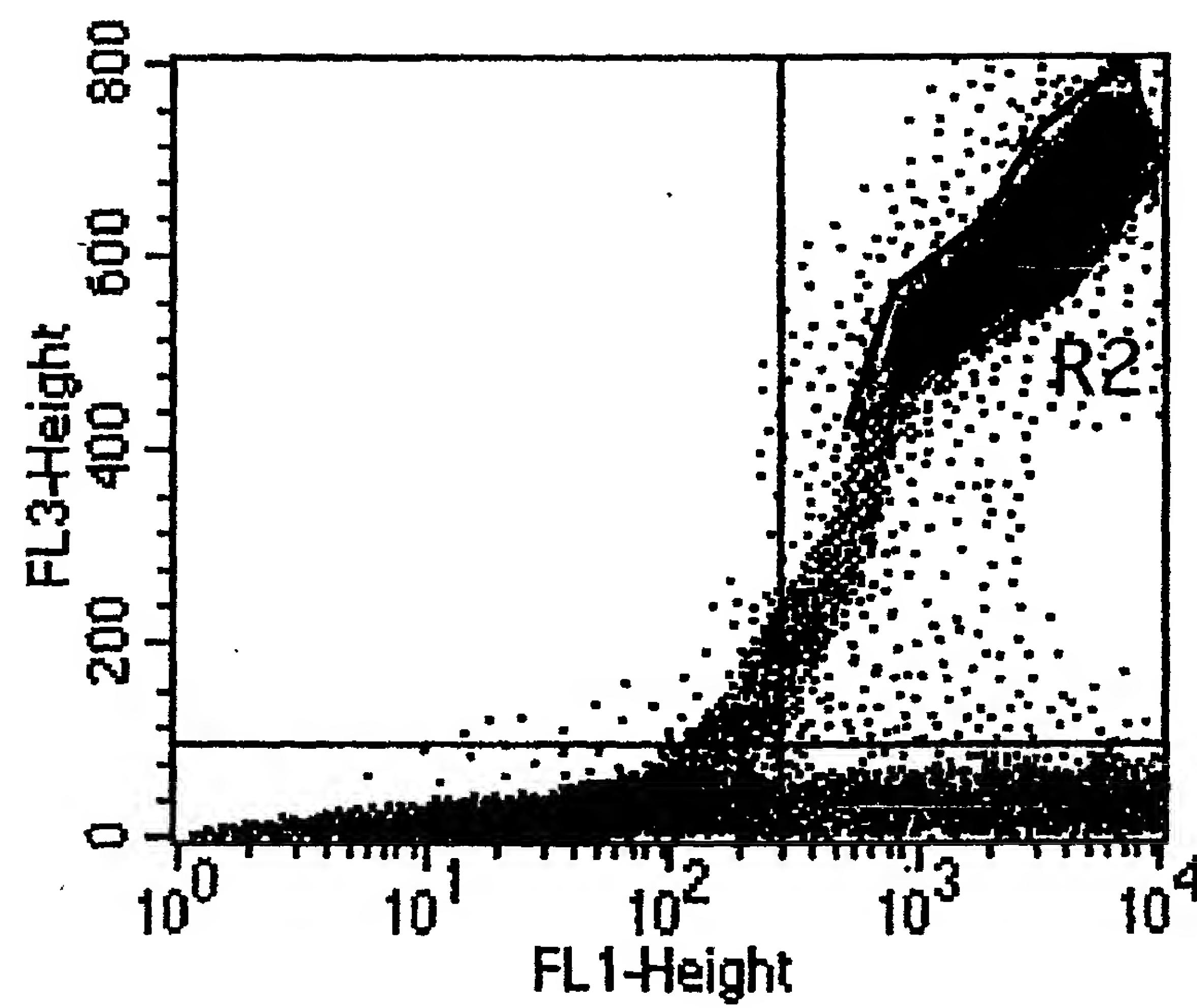


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**Fig.26**

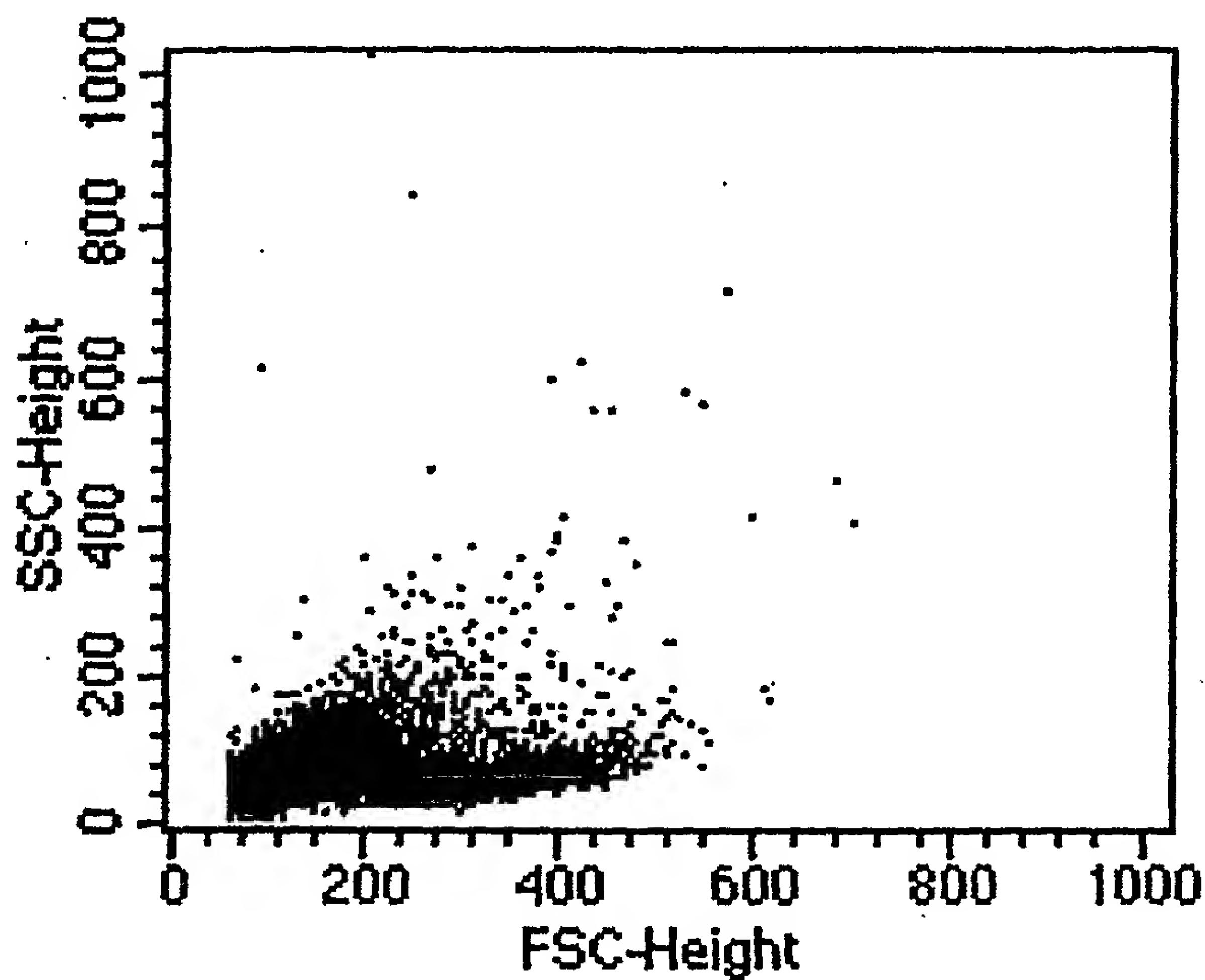


**Fig.27**

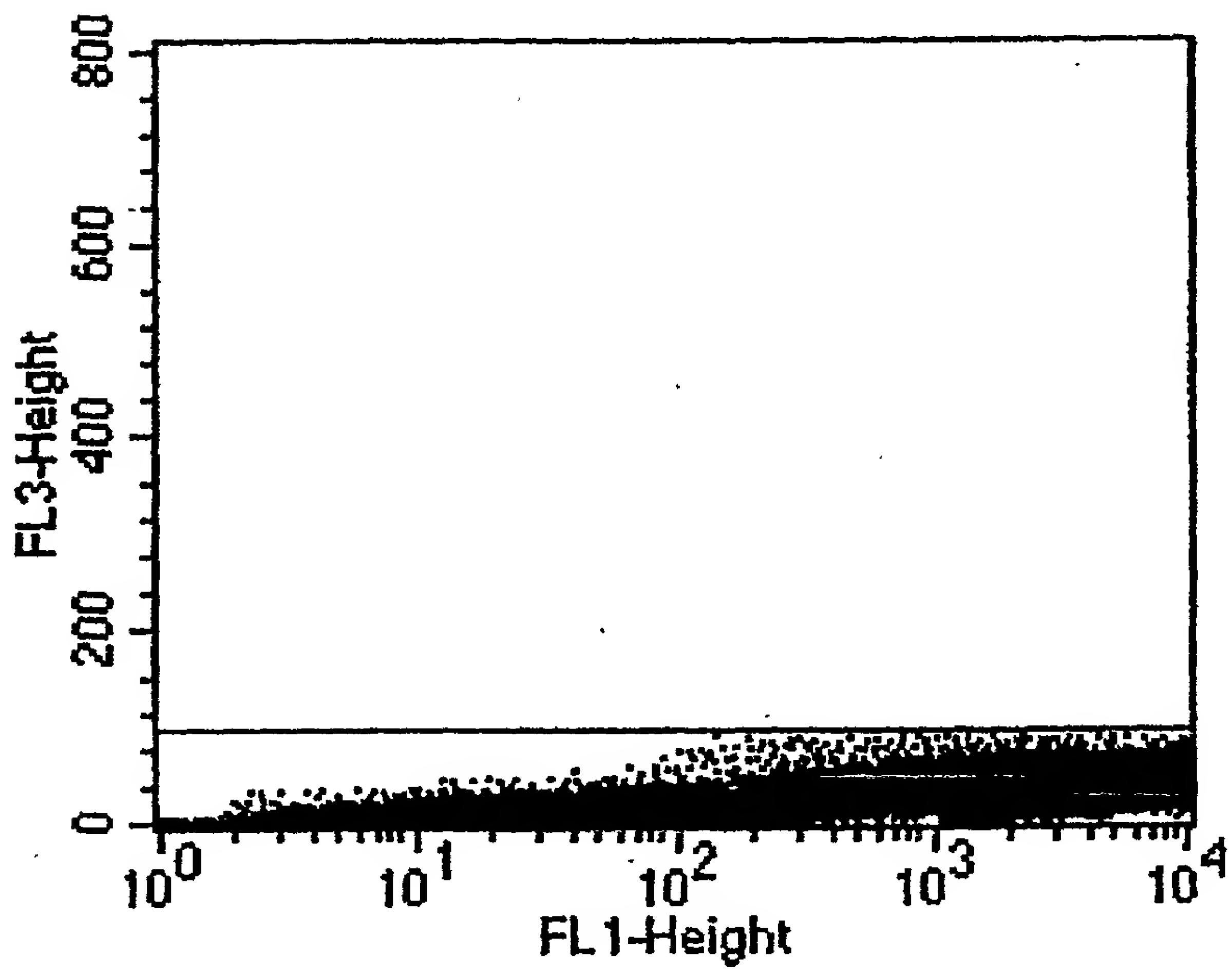


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**Fig.28**

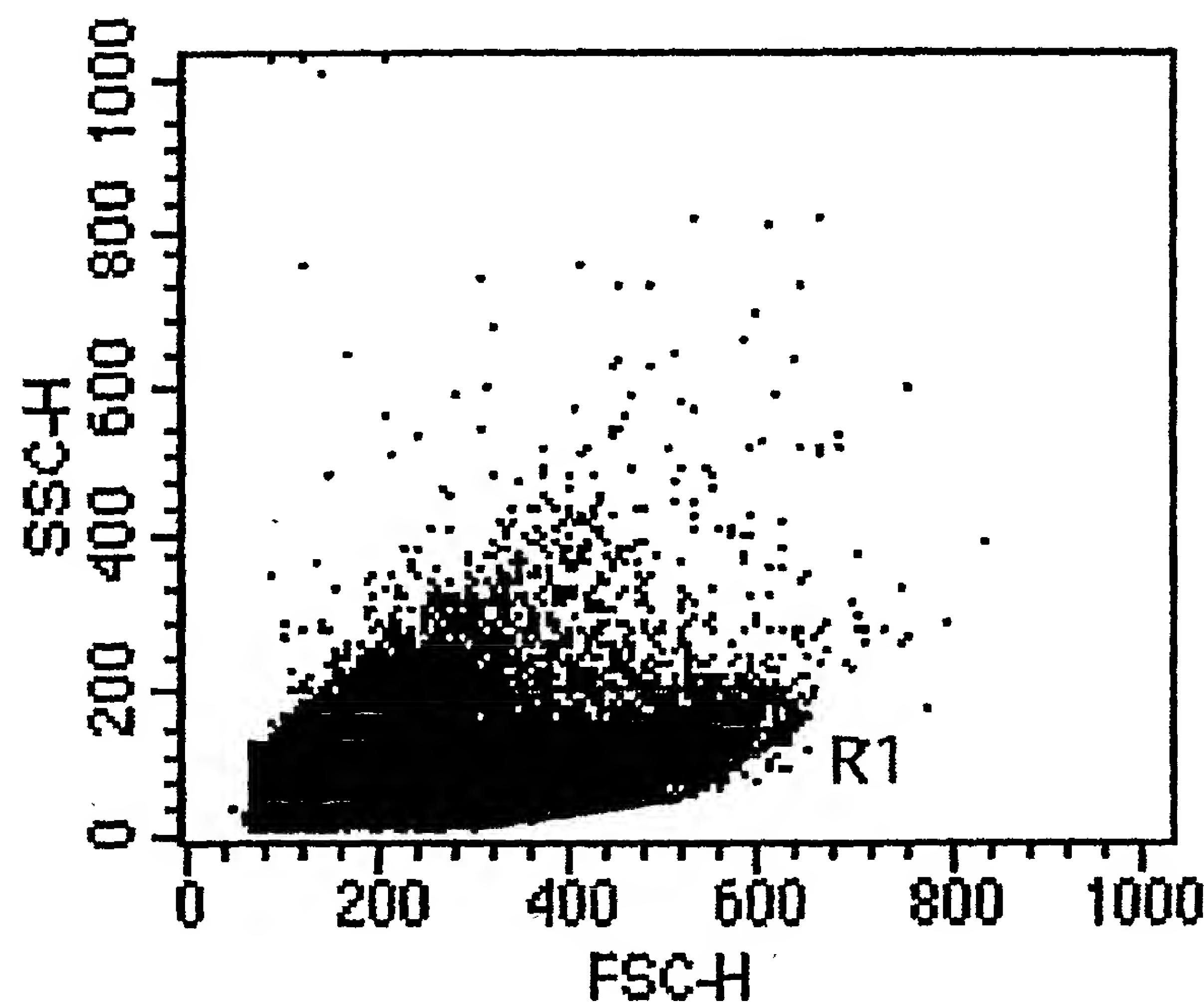


**Fig.29**

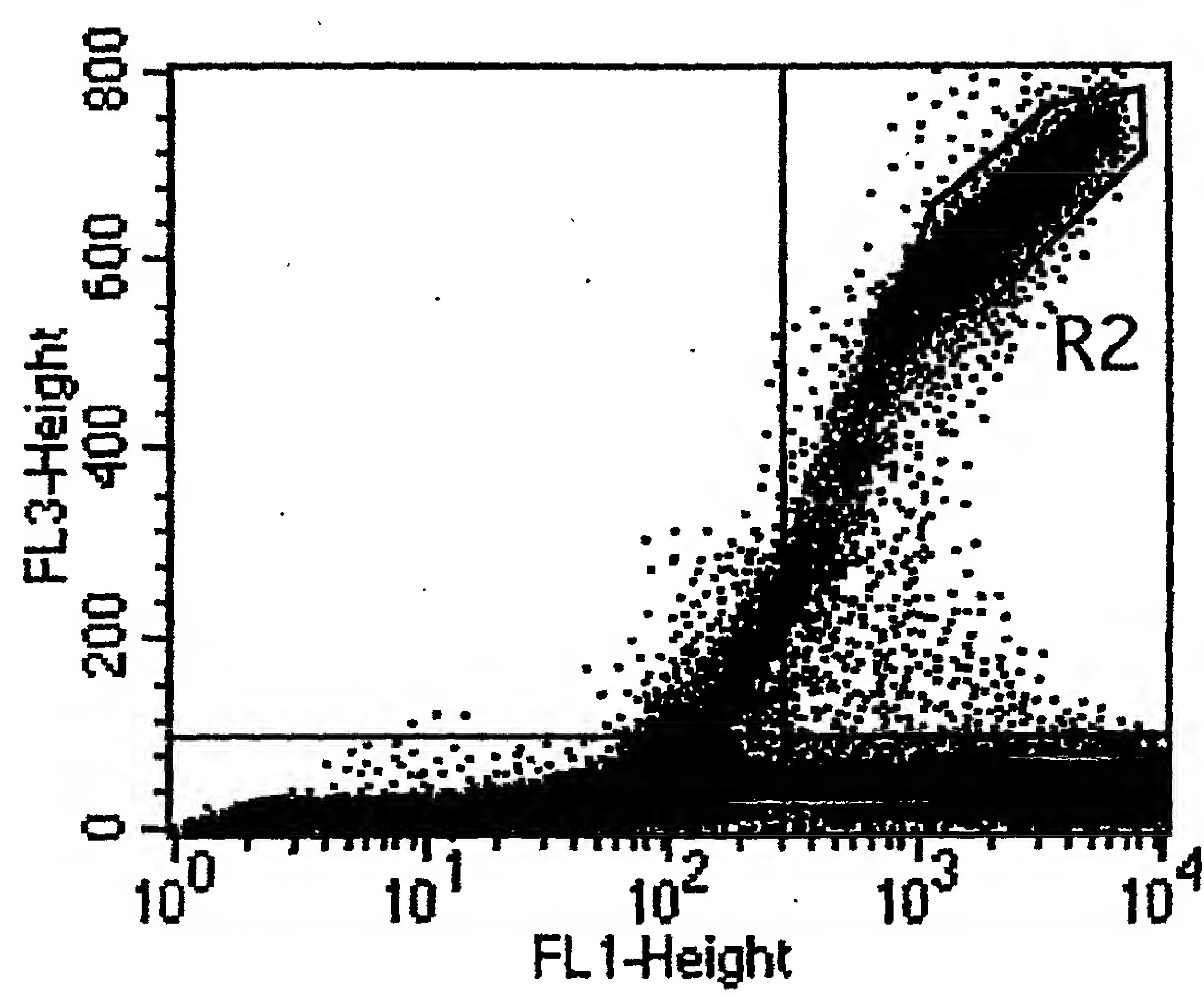


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**Fig.30**

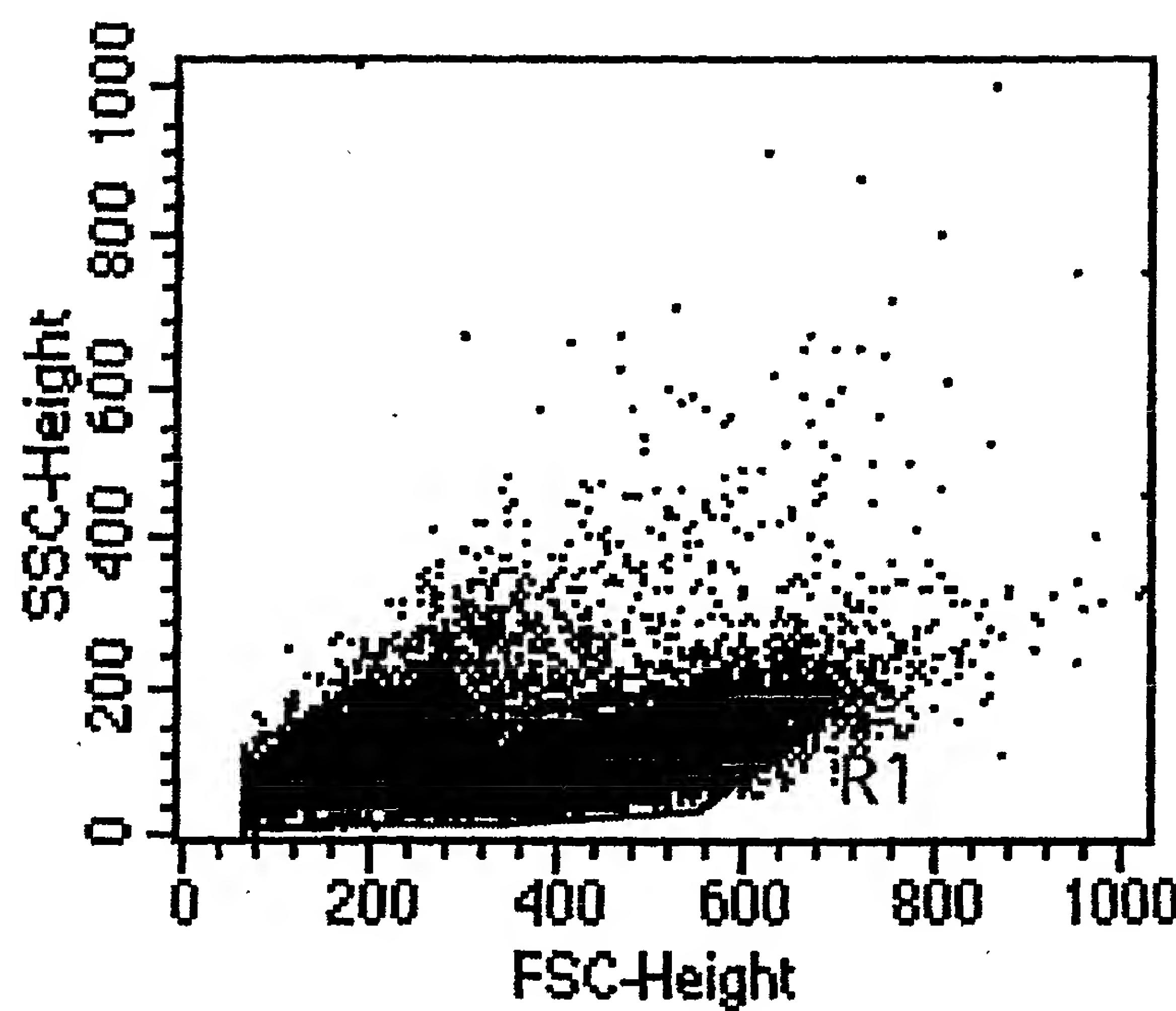


**Fig.31**

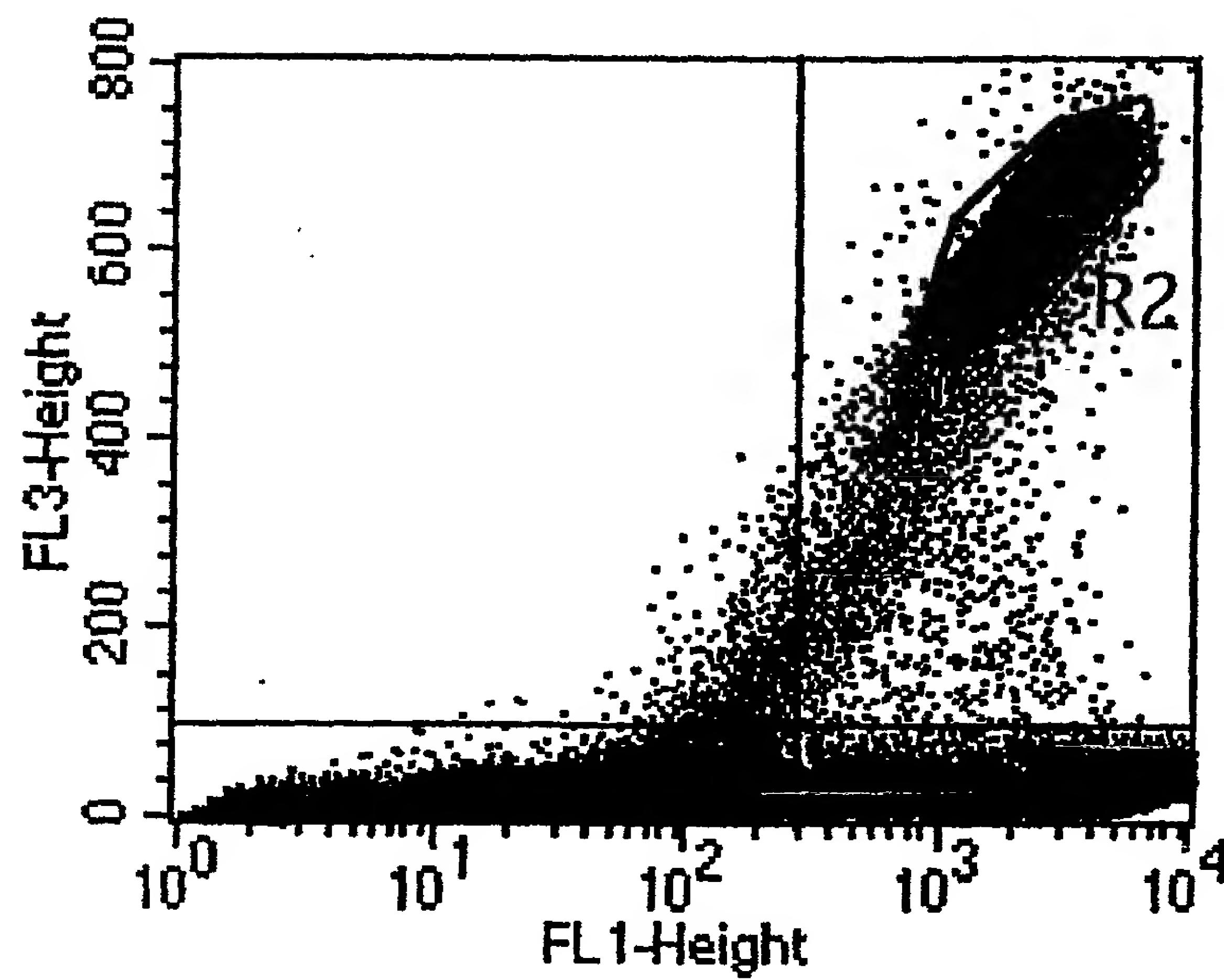


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**Fig.32**

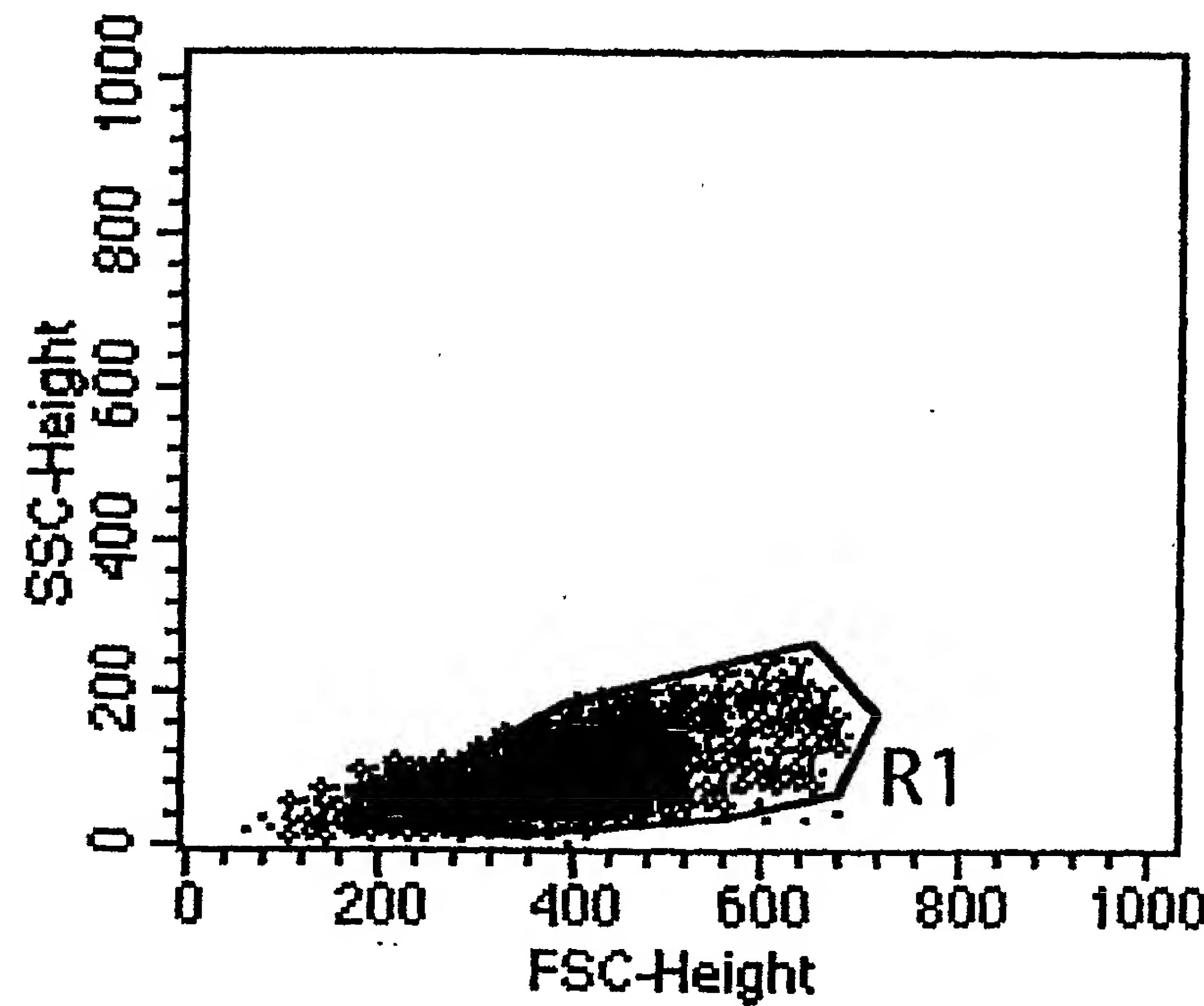


**Fig.33**

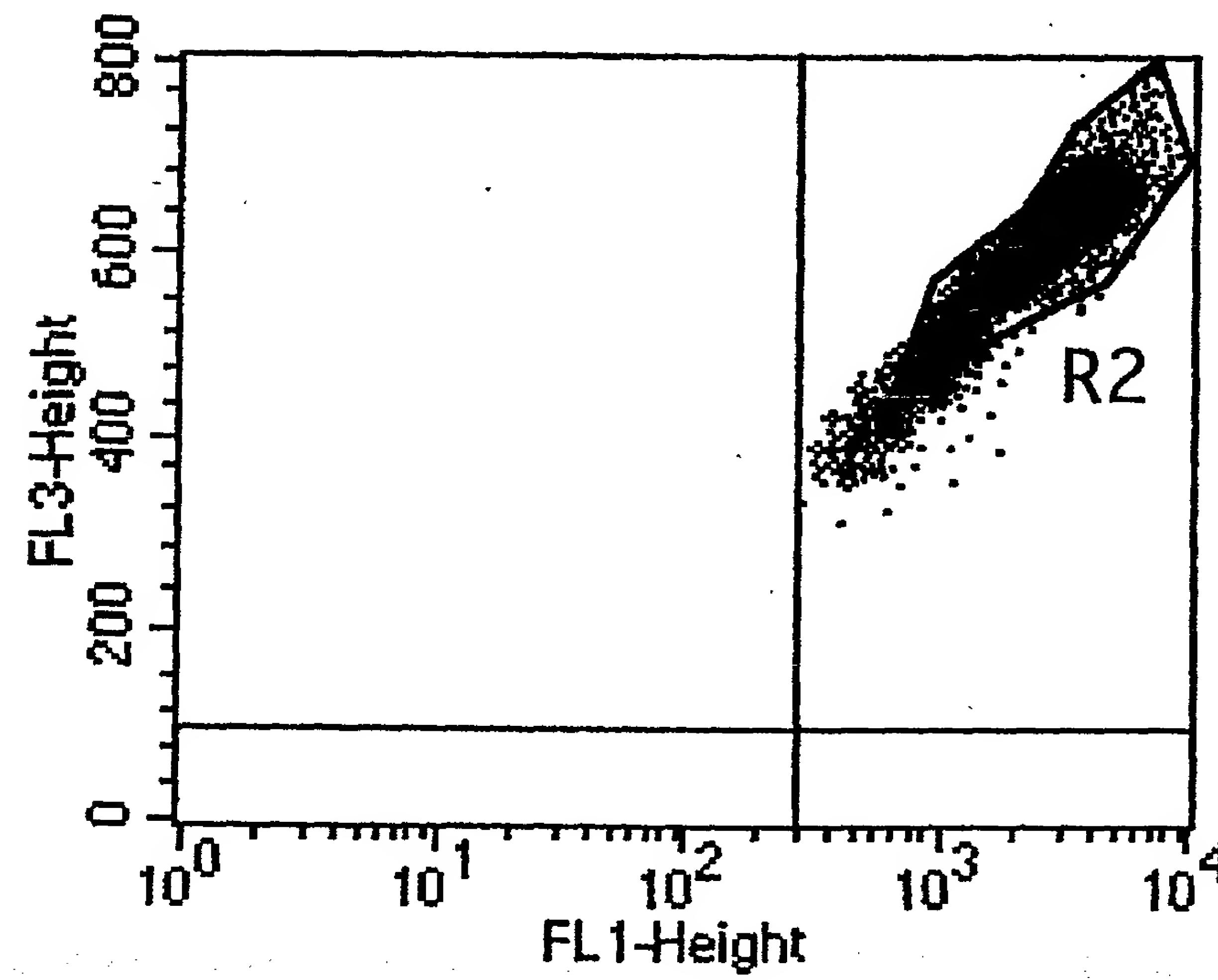


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**Fig.34**

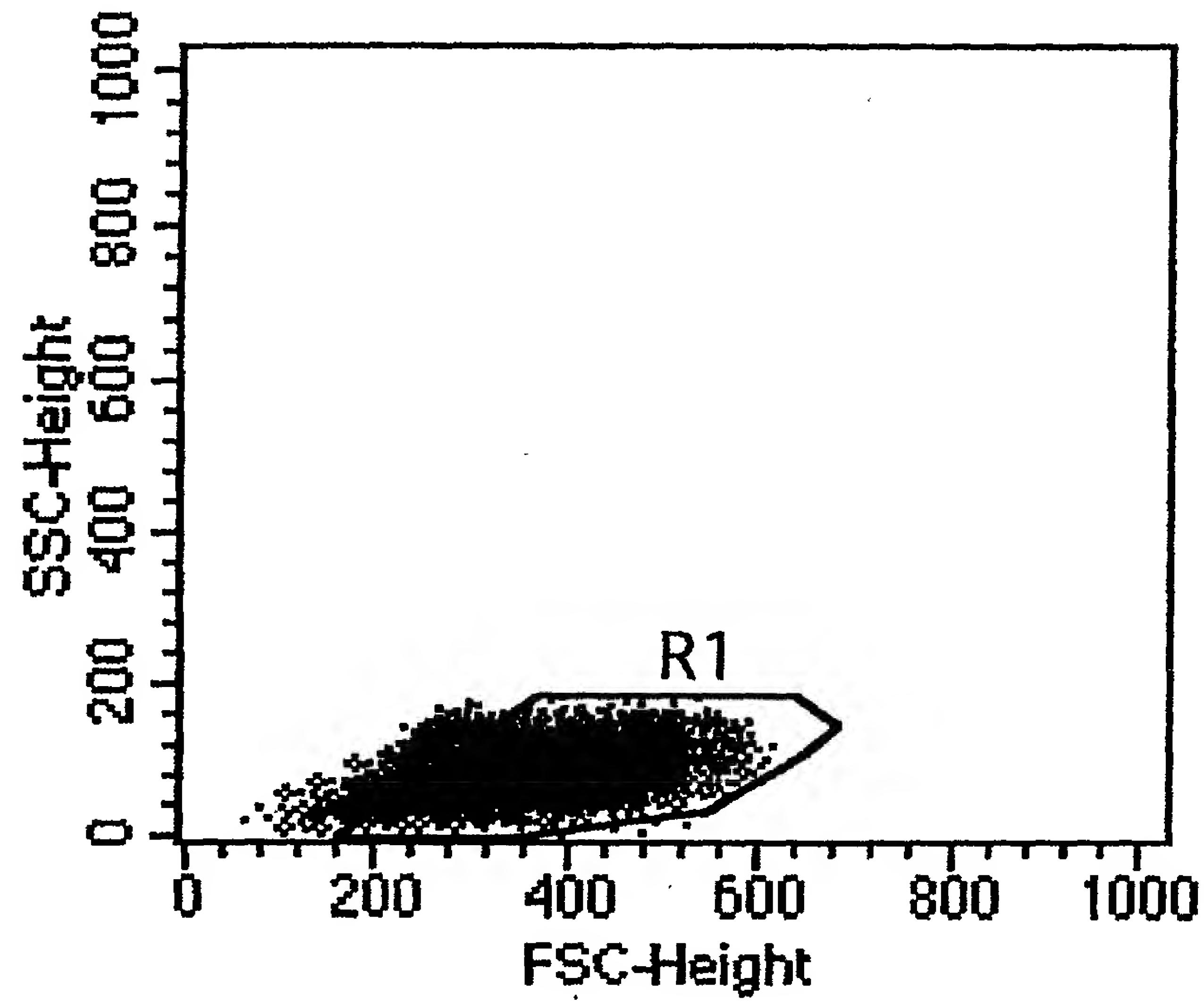


**Fig.35**

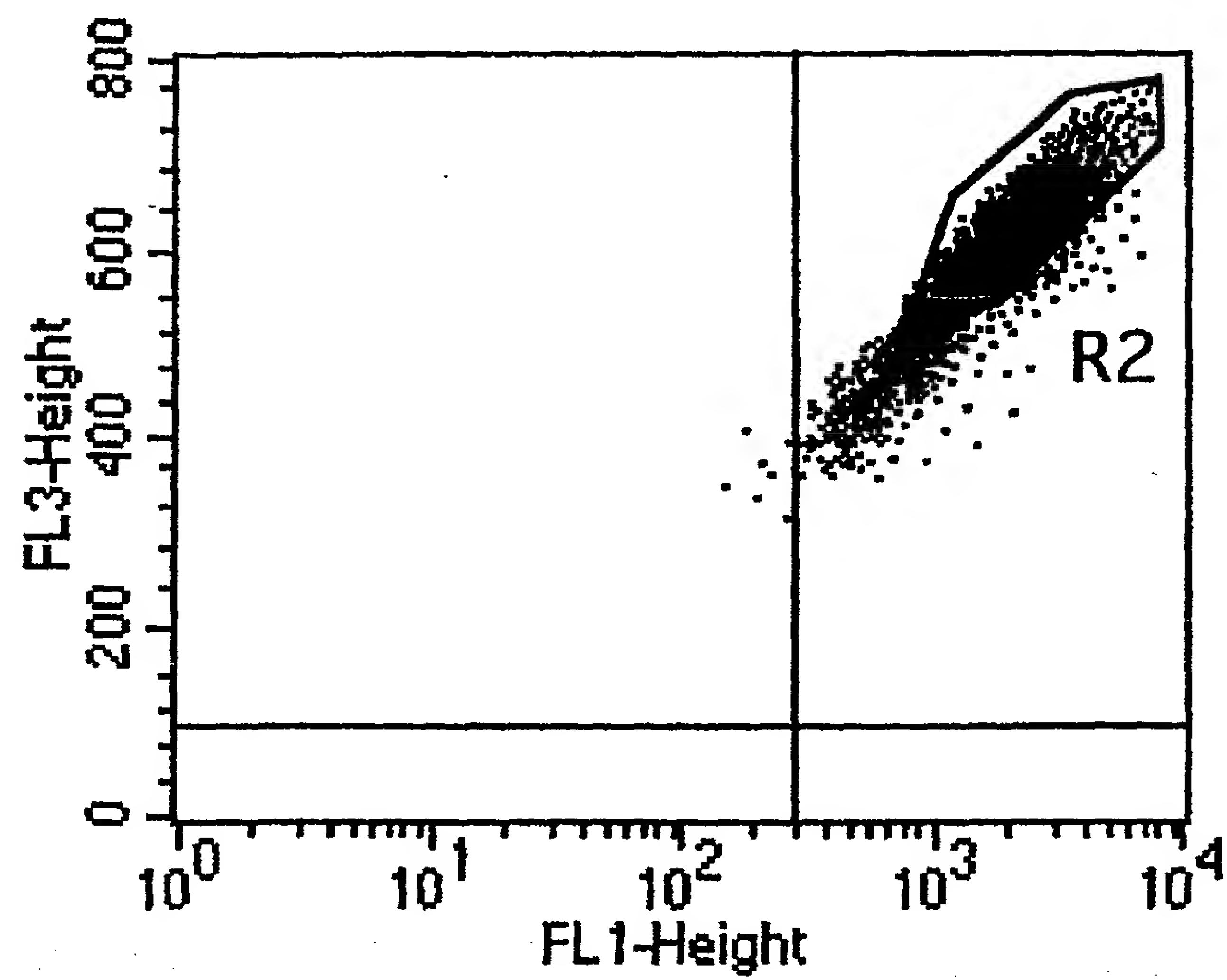


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**Fig.36**



**Fig.37**



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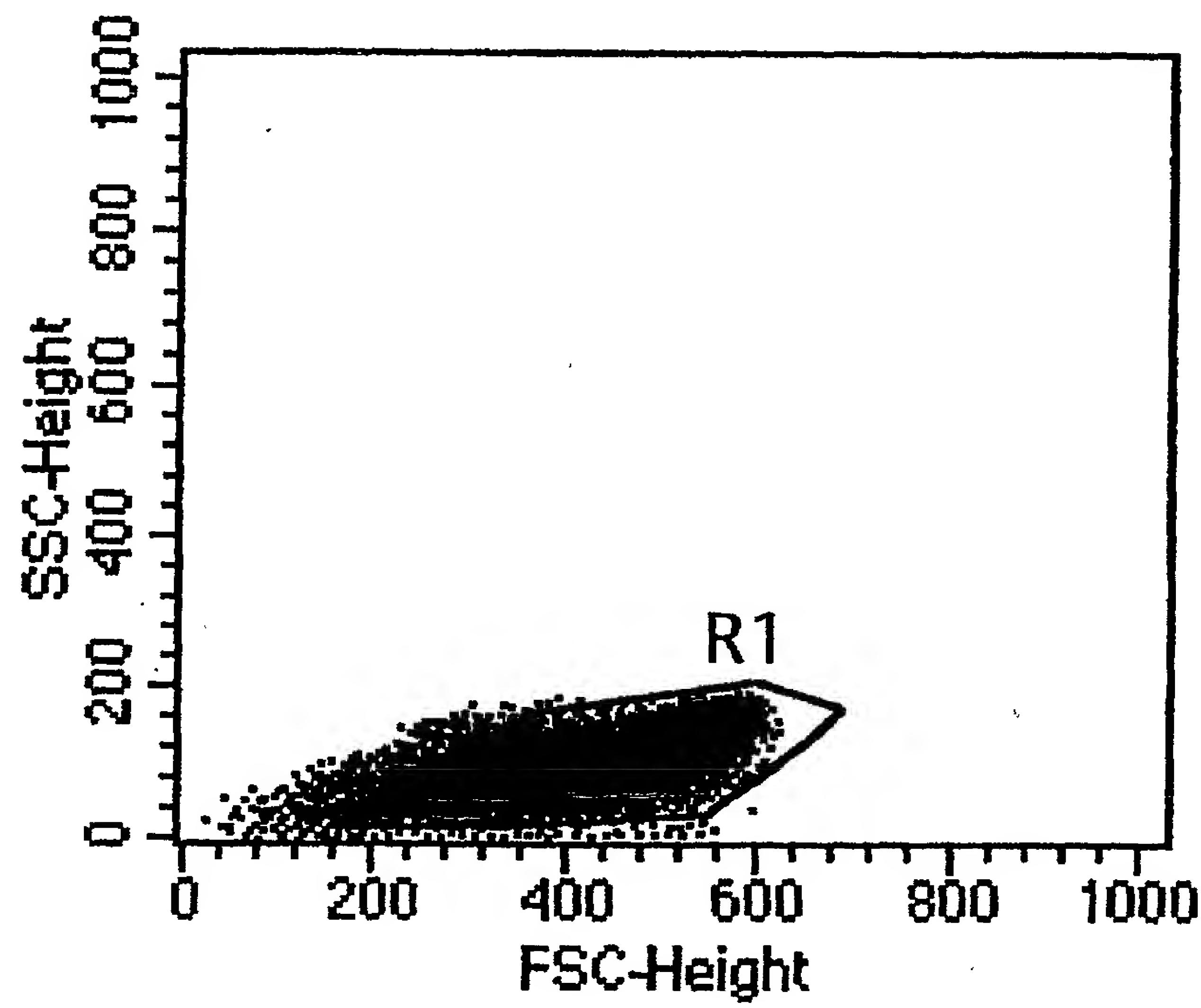
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

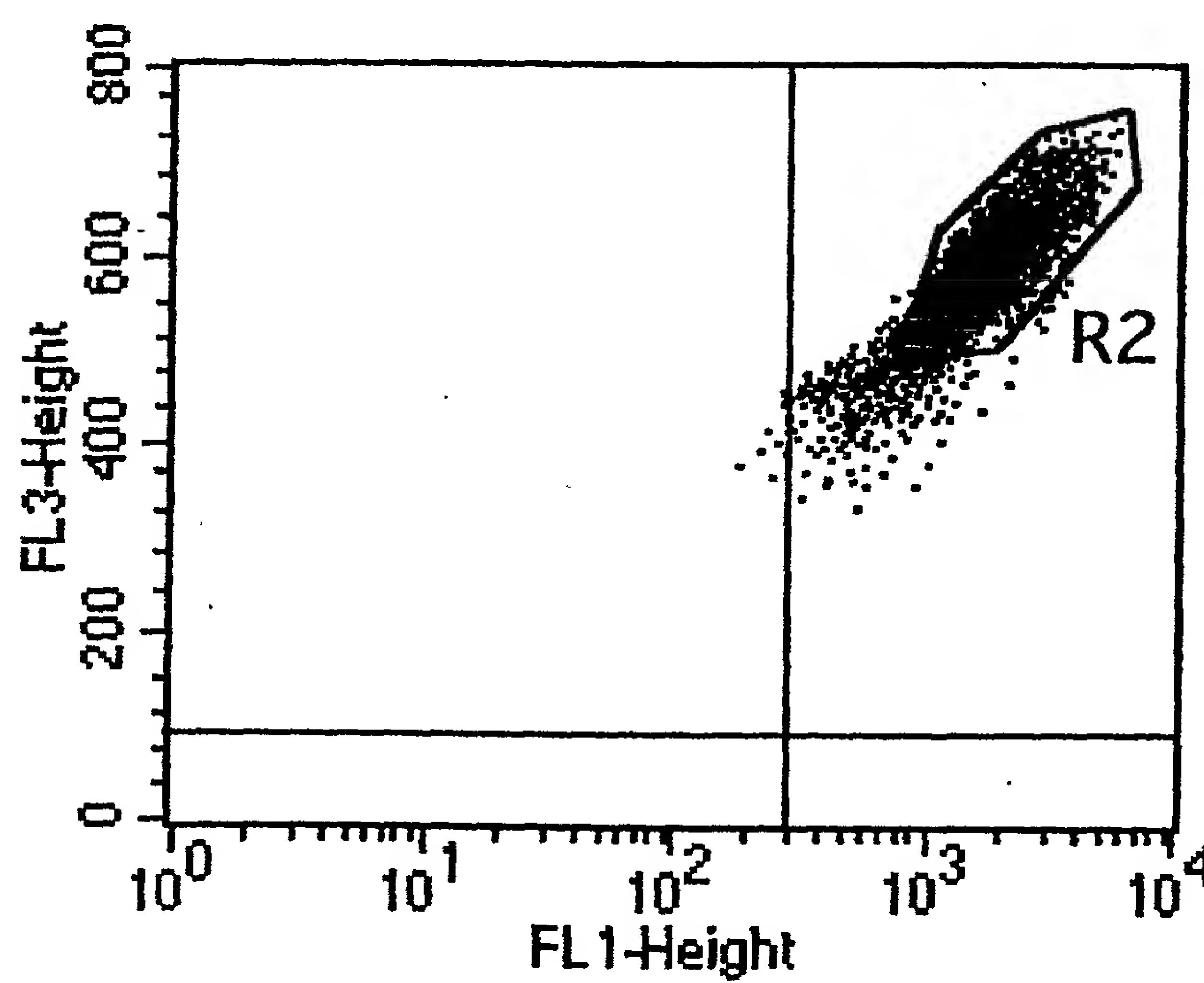
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**Fig.38**



**Fig.39**



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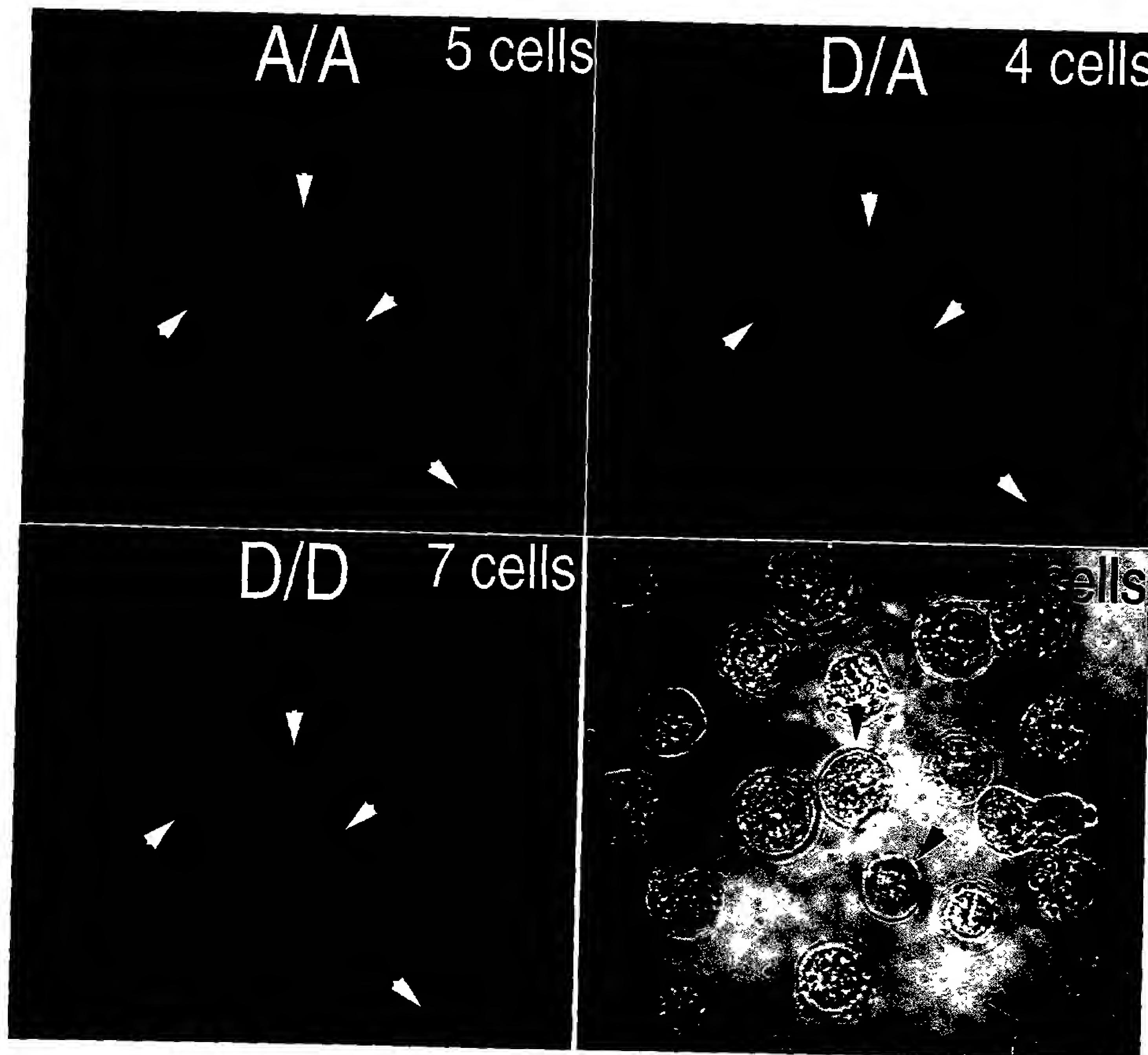
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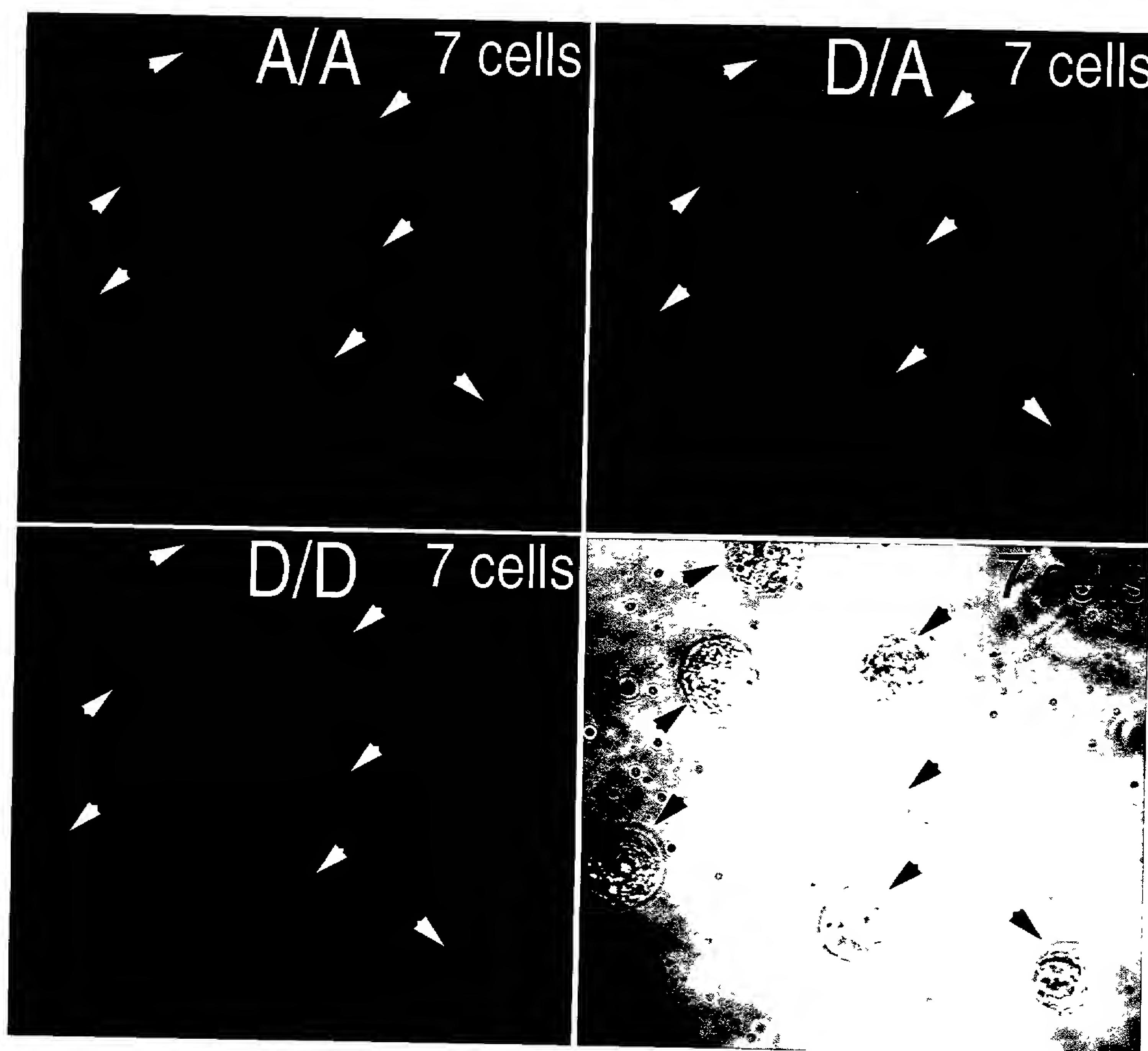
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**Fig.40**



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**Fig.41**



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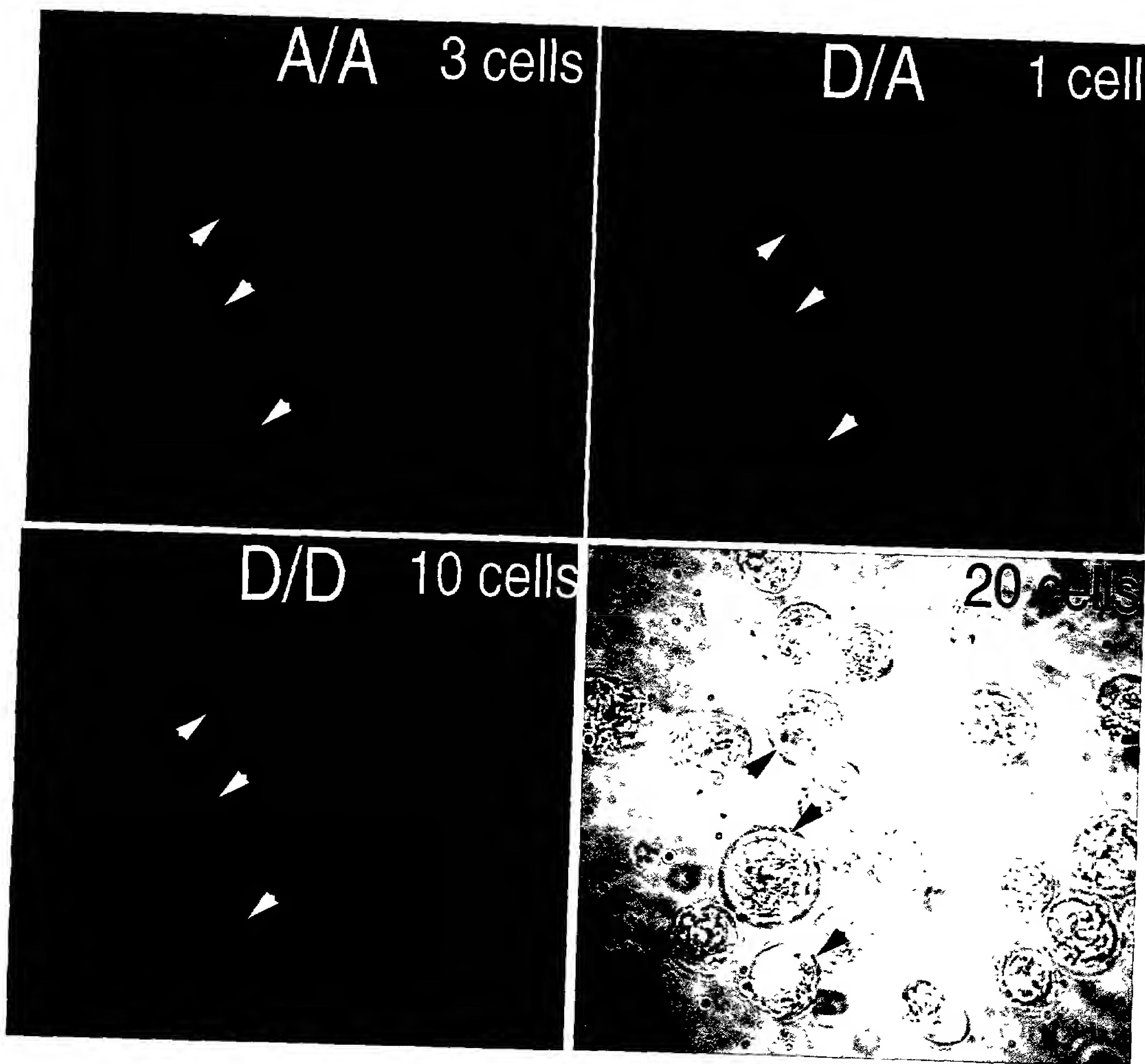
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

Leydig, Voit & Mayer, Ltd.

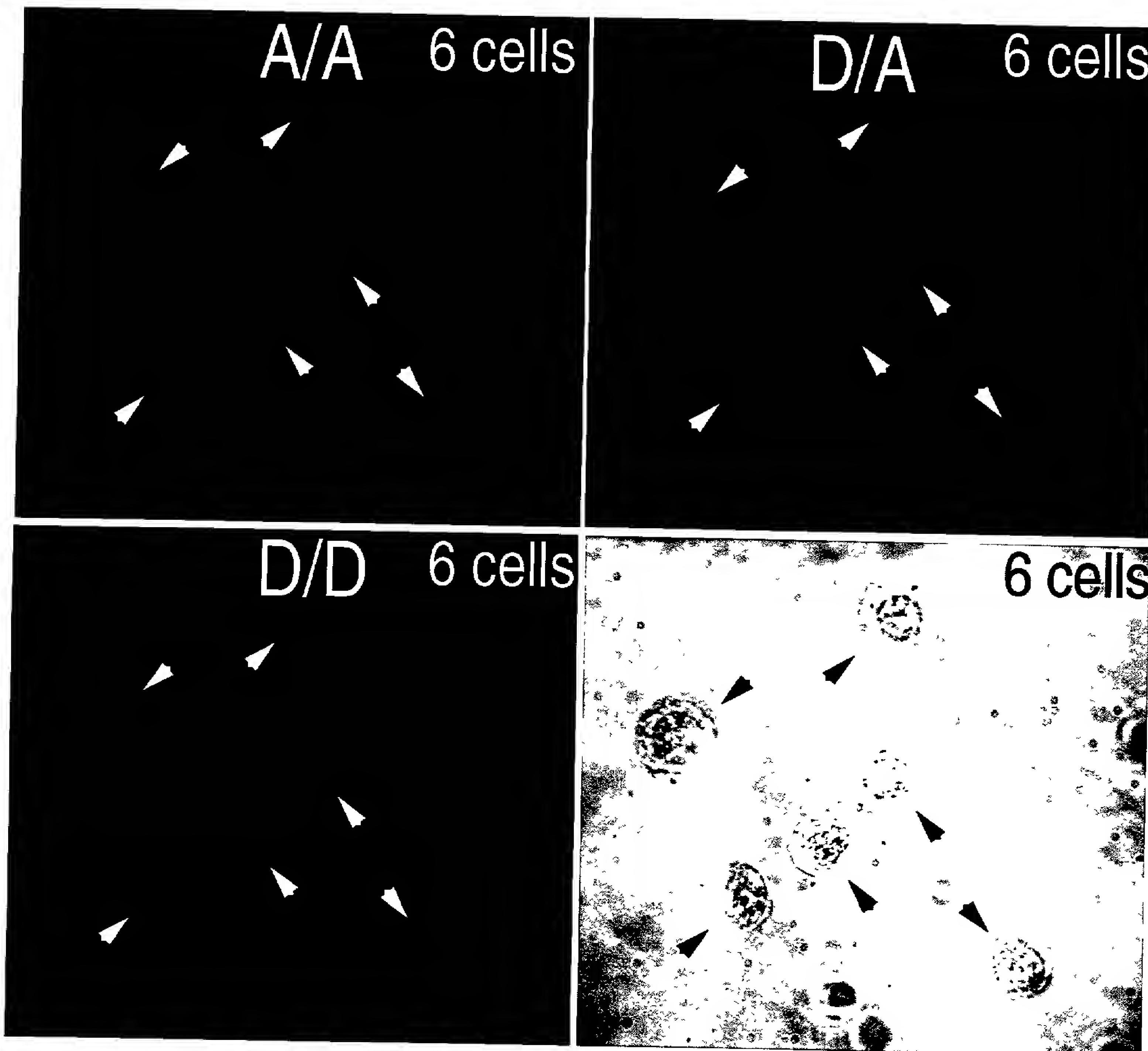
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**Fig.42**



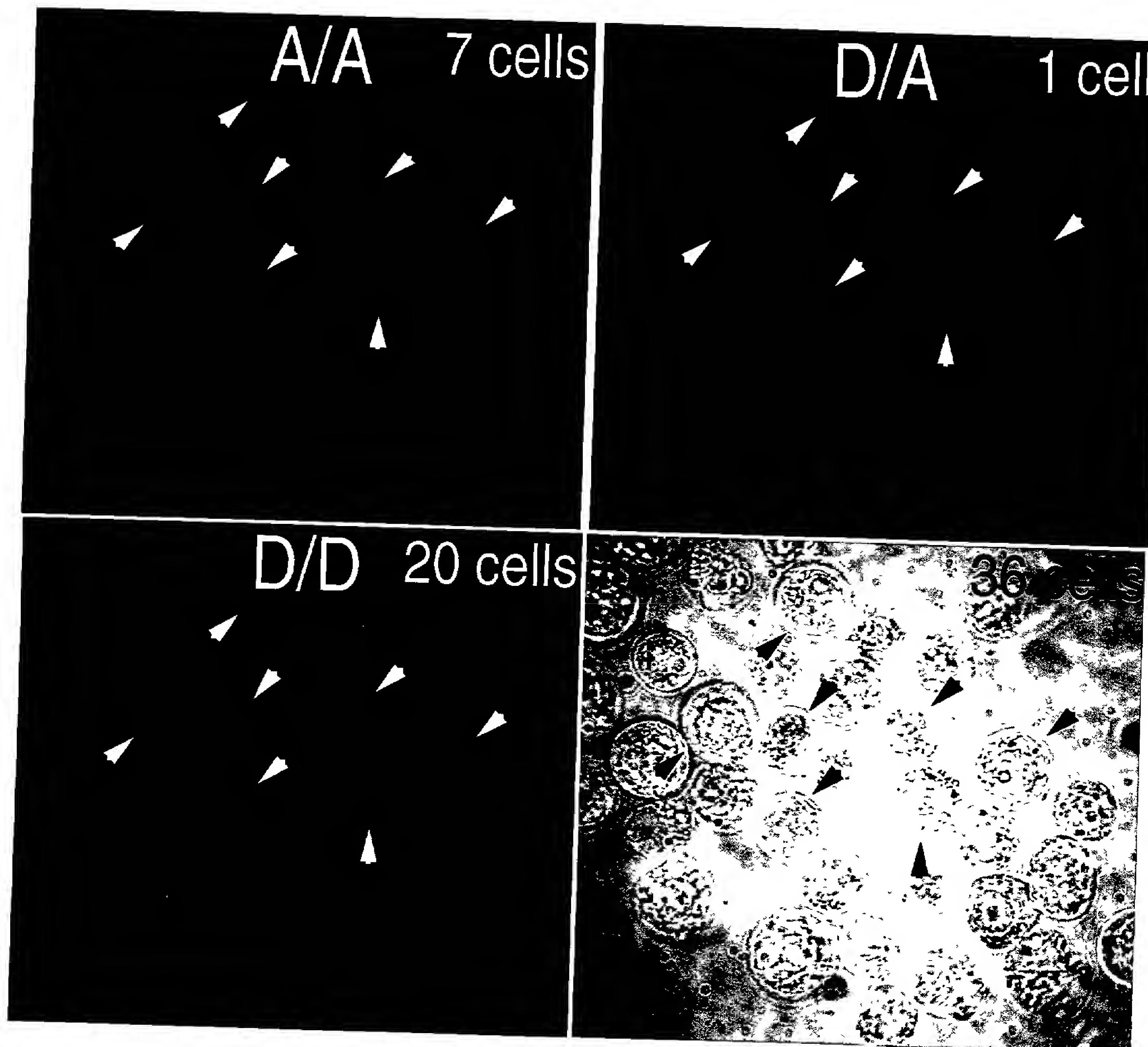
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**Fig.43**



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**Fig.44**



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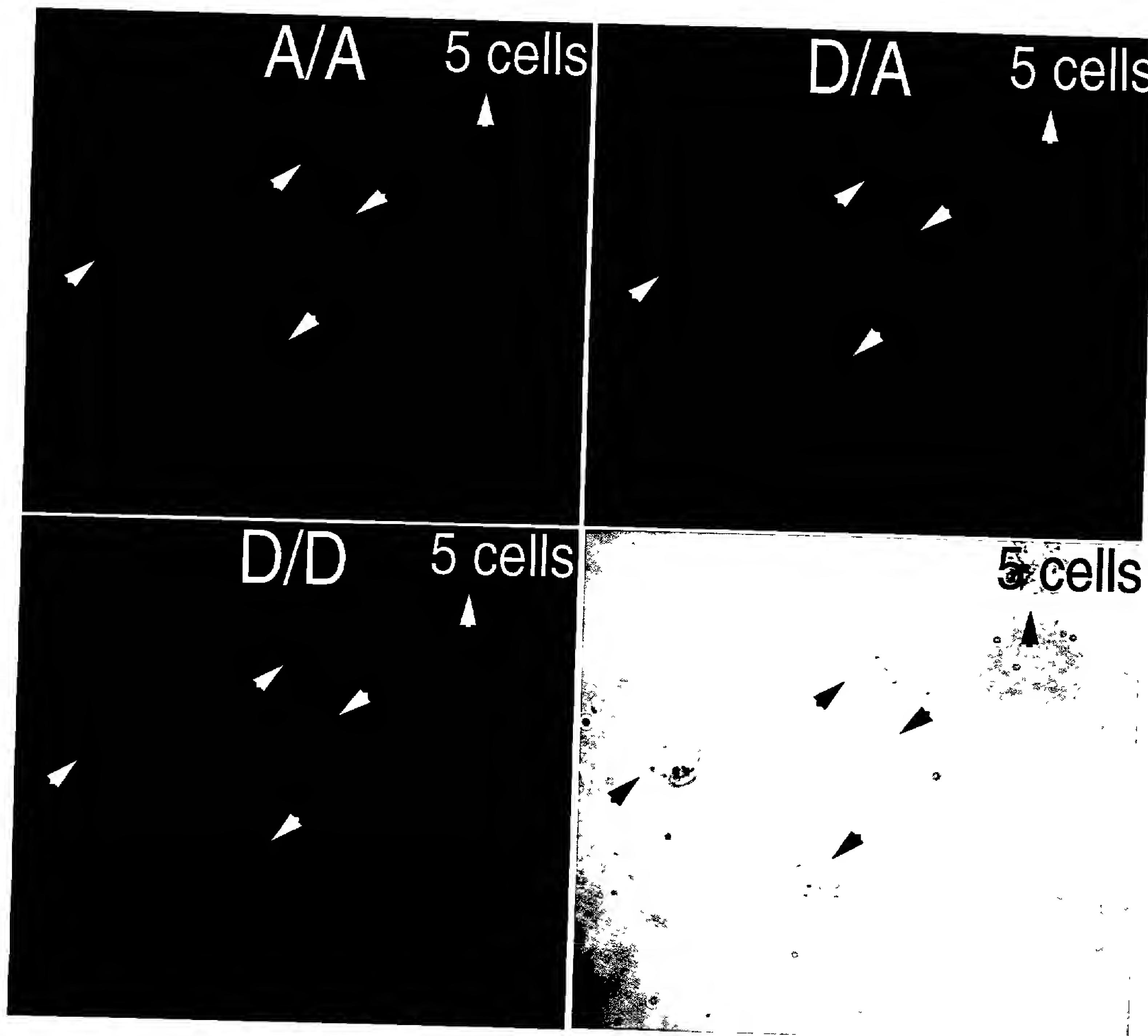
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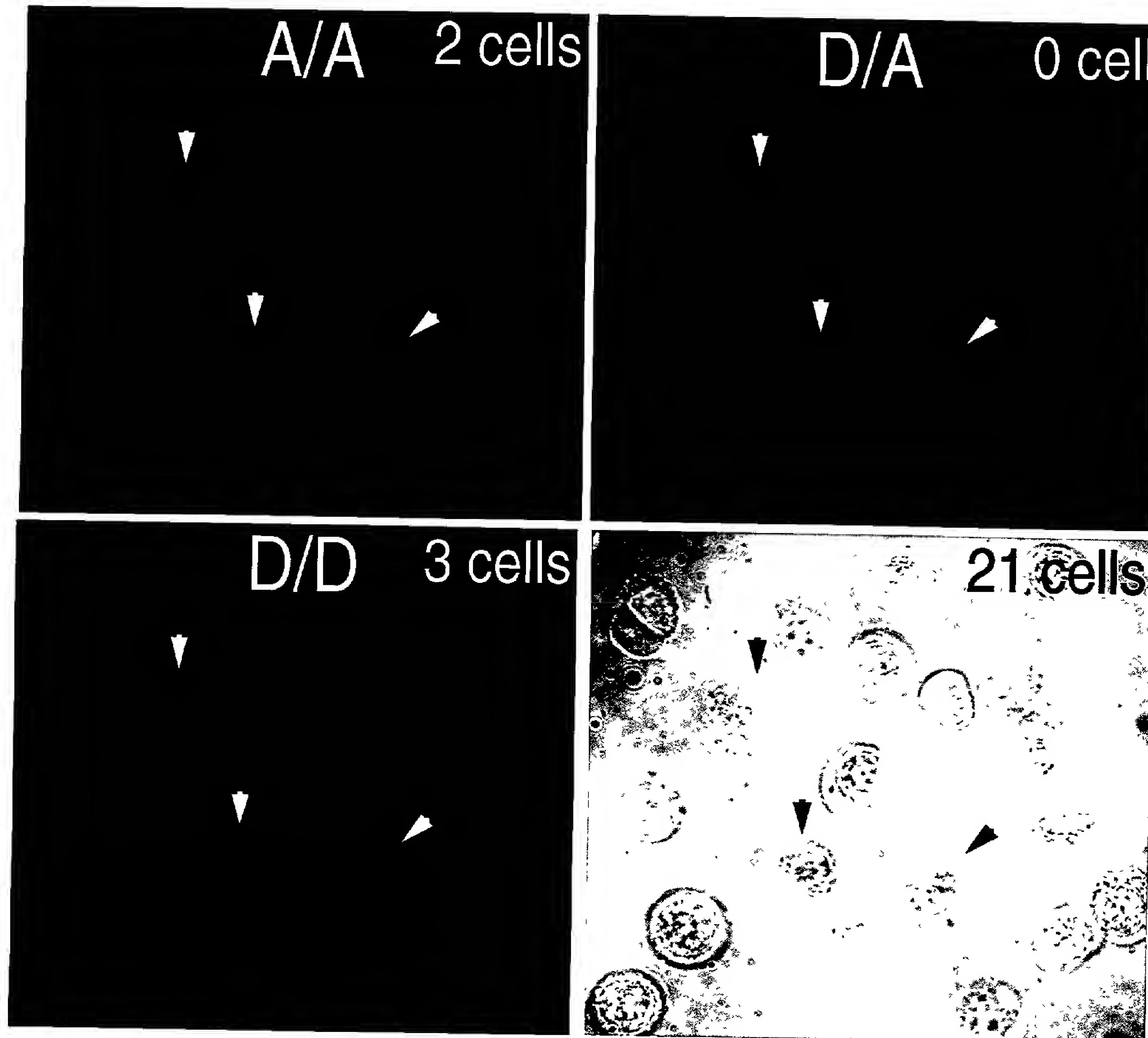
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**Fig.45**



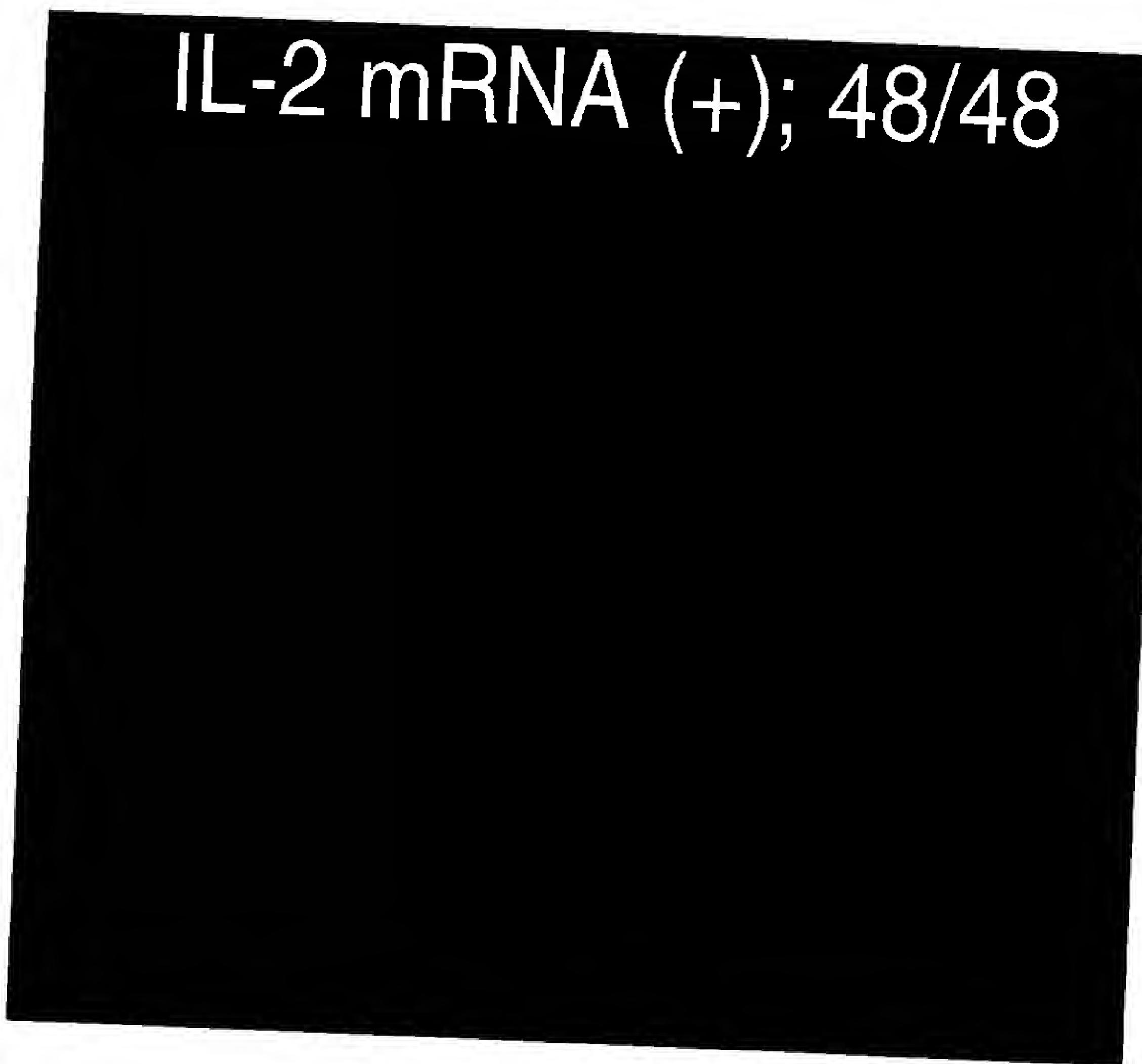
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**Fig.46**



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202-737-6770

**Fig.47**



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

Inventors: ISHIBASHI et al.

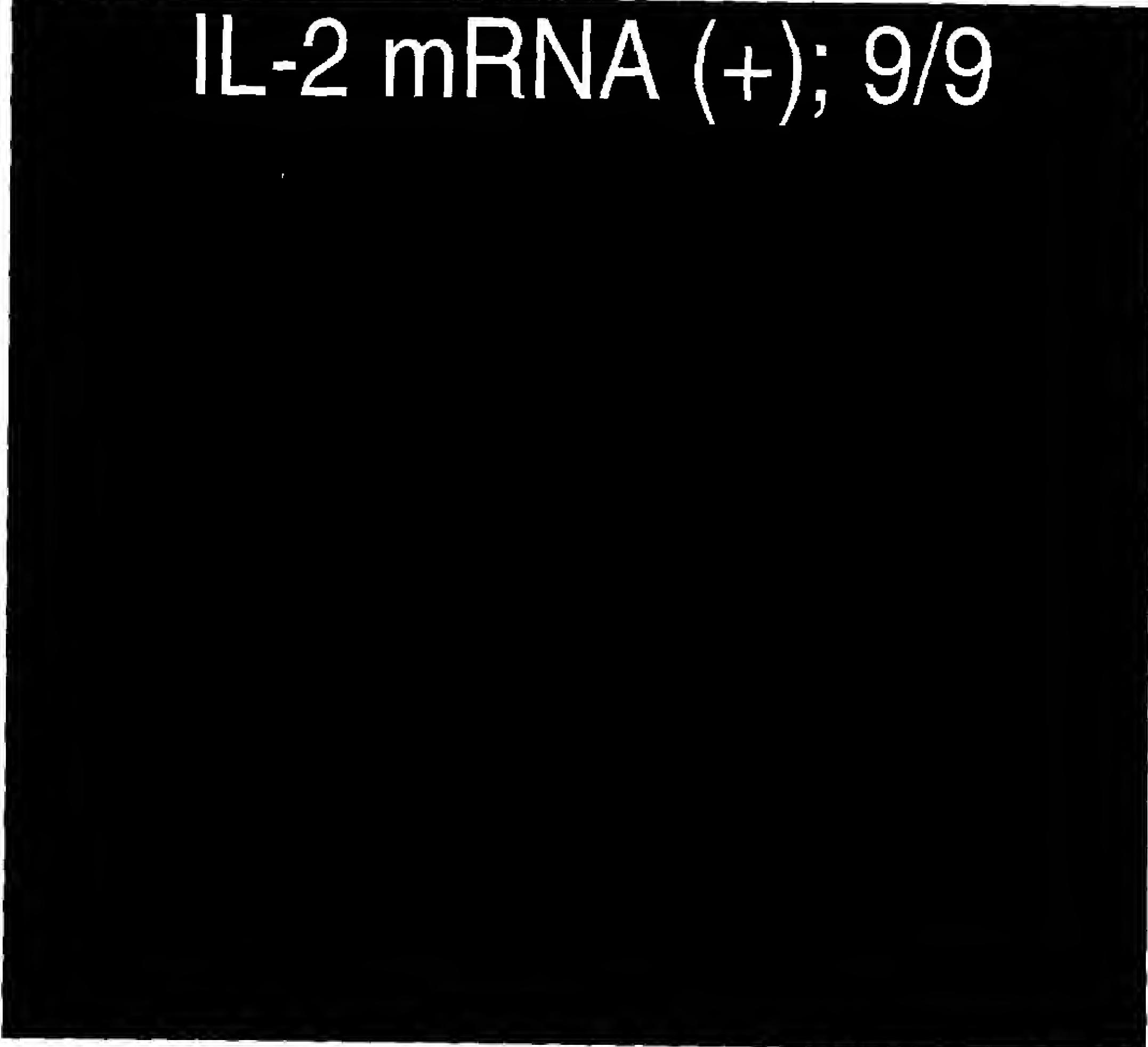
Atty Docket No.: 400684/SOEI

Leydig, Voit & Mayer, Ltd.

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## *Fig.48*

IL-2 mRNA (+); 9/9



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

Inventors: ISHIBASHI et al.

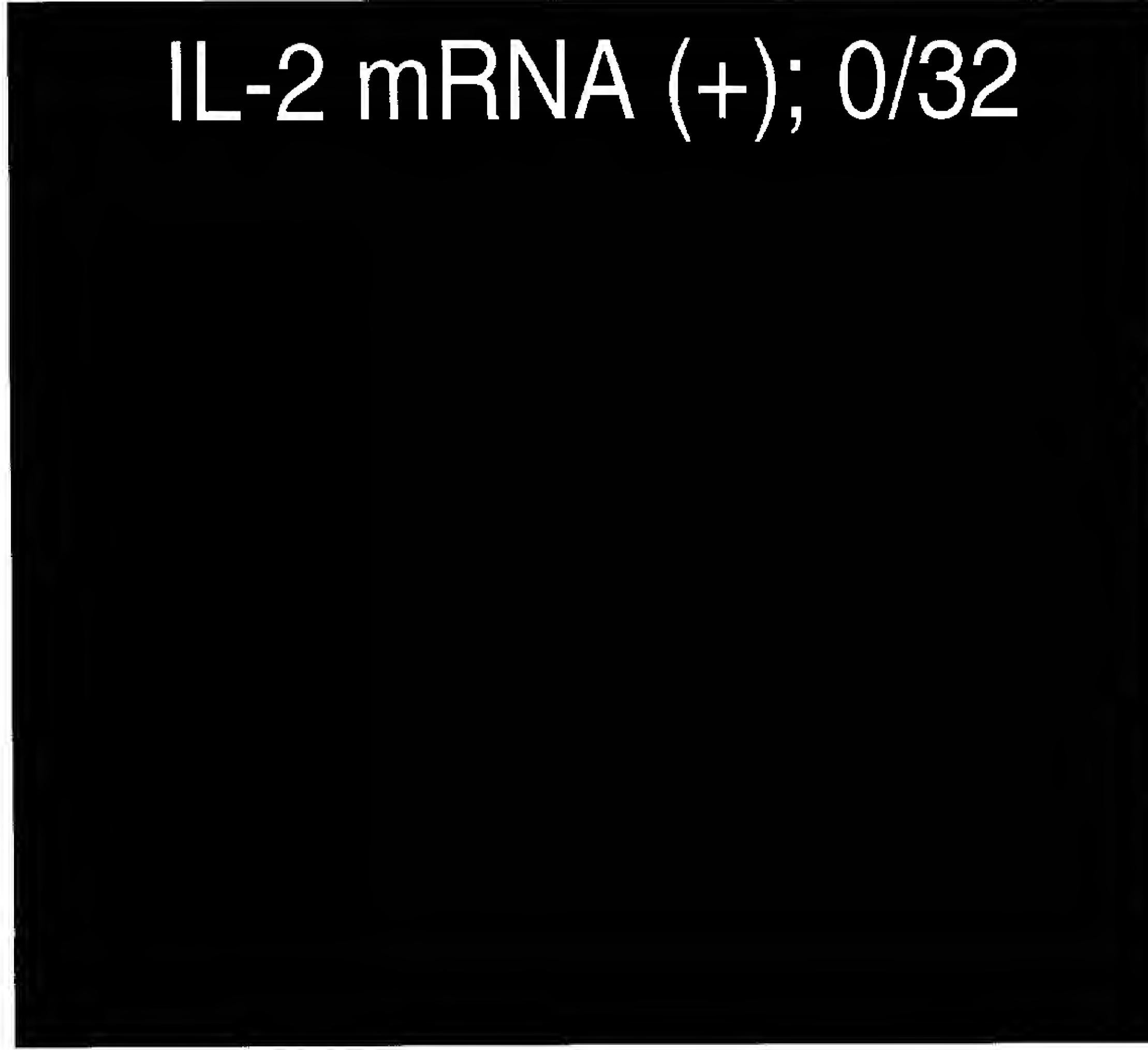
Atty Docket No.: 400684/SOEI

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## **Fig.49**

IL-2 mRNA (+); 0/32



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

Inventors: ISHIBASHI et al.

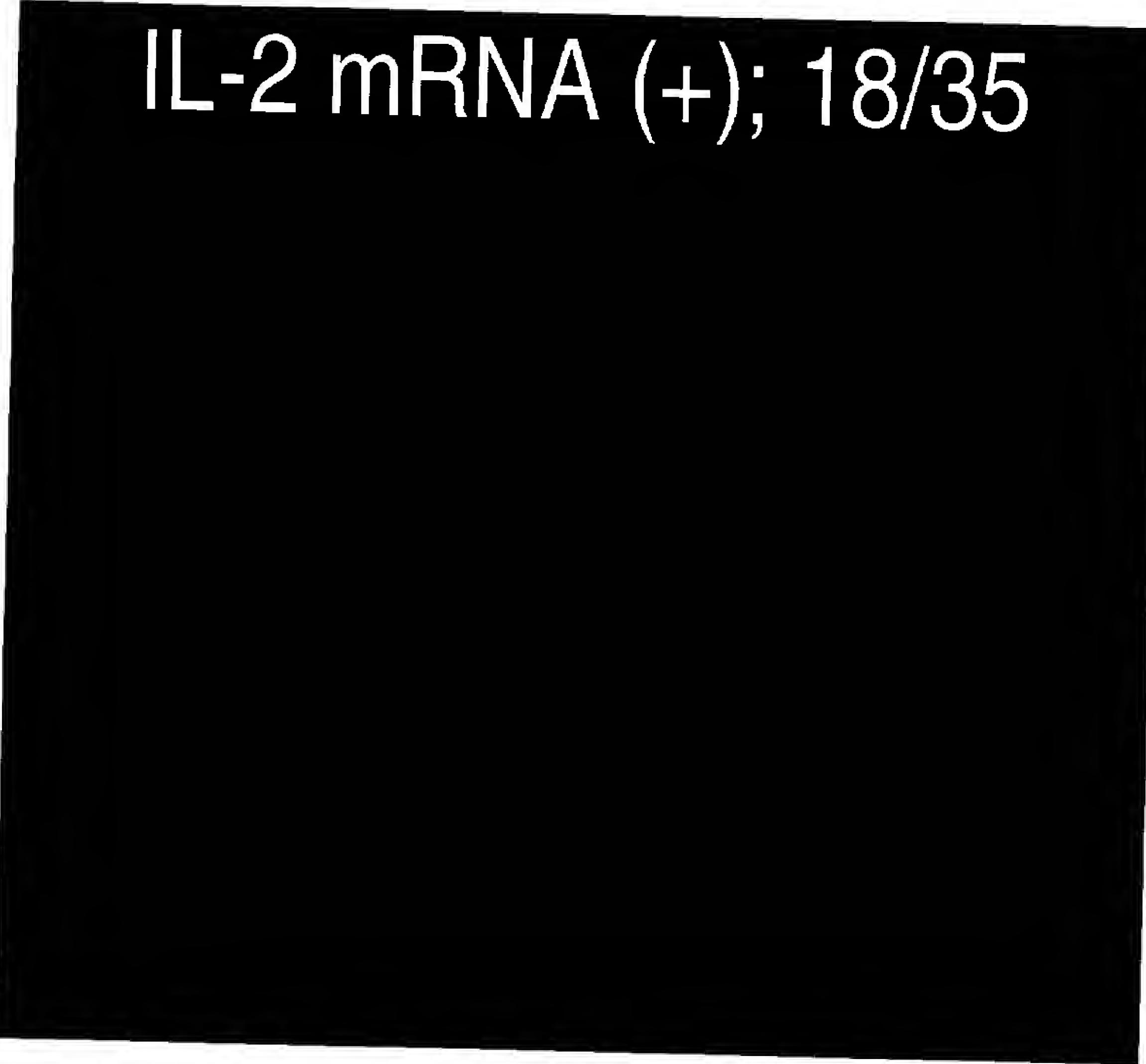
Atty Docket No.: 400684/SOEI

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***Fig.50***

IL-2 mRNA (+); 18/35



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

Leydig, Voit & Mayer, Ltd.

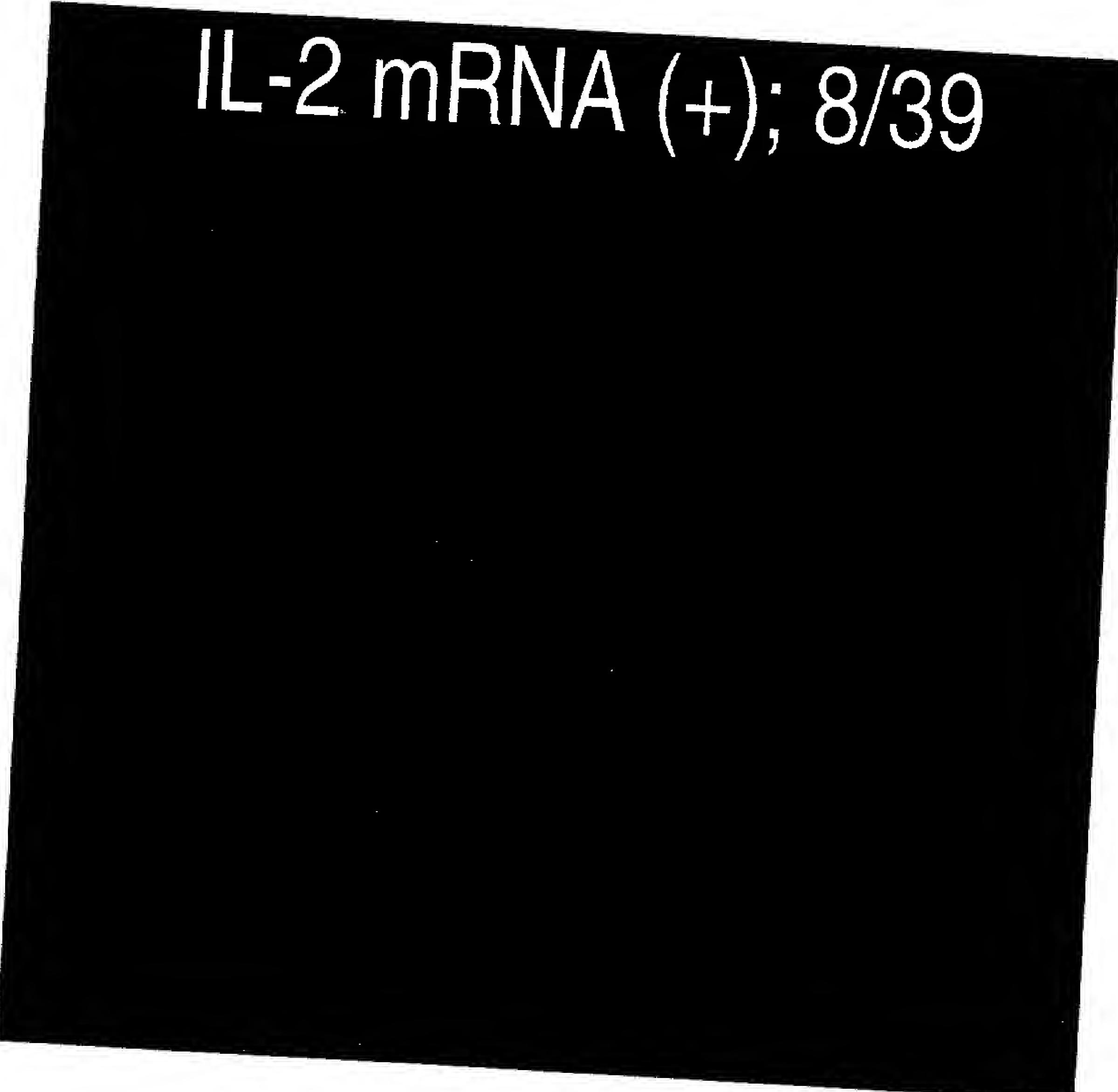
202-737-6770

## Fig.51



**Fig.52**

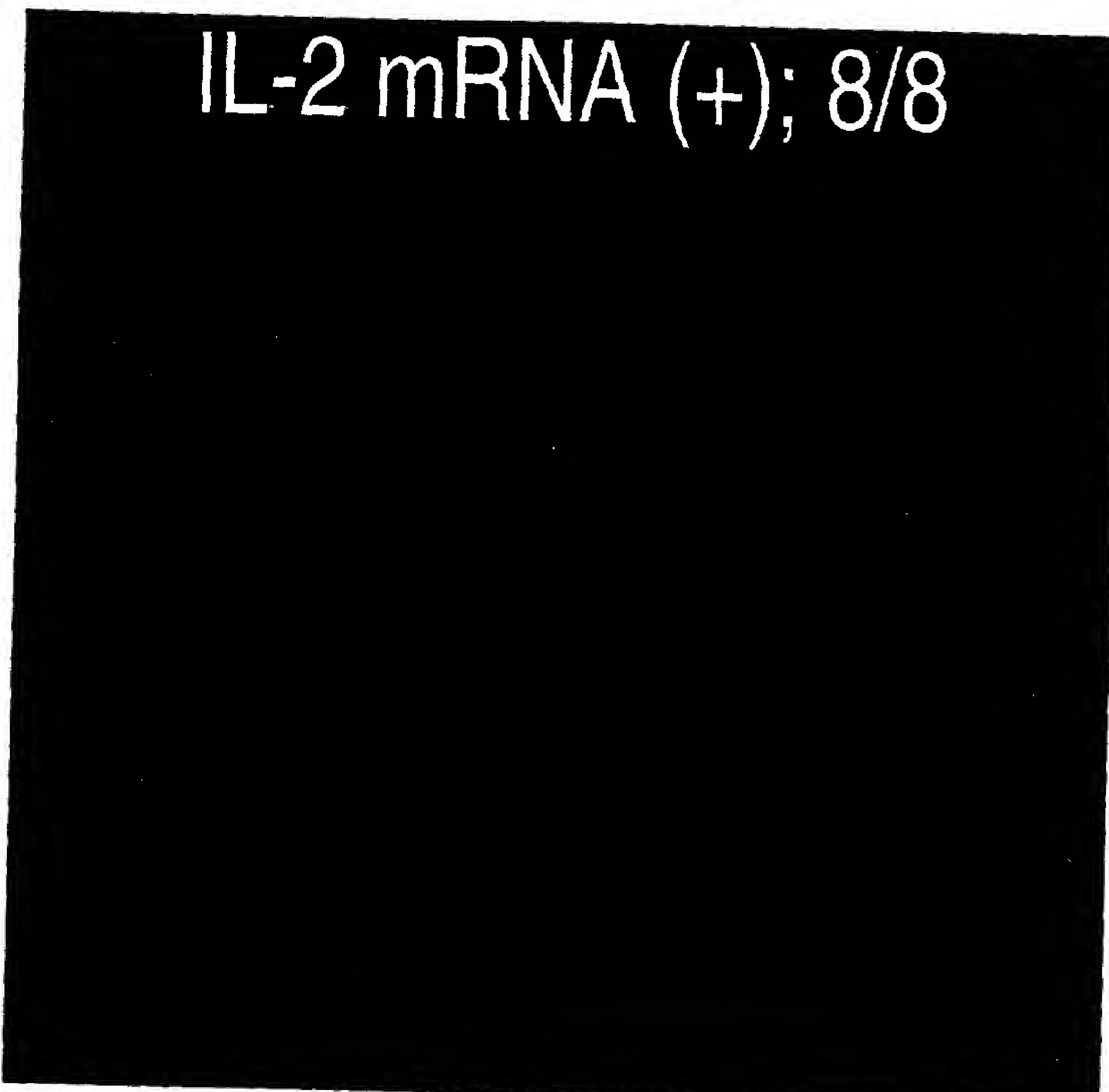
IL-2 mRNA (+); 8/39



Method or Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
Leydig, Voit & Mayer, Ltd.  
202-737-6770

## Fig.53

IL-2 mRNA (+); 8/8



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

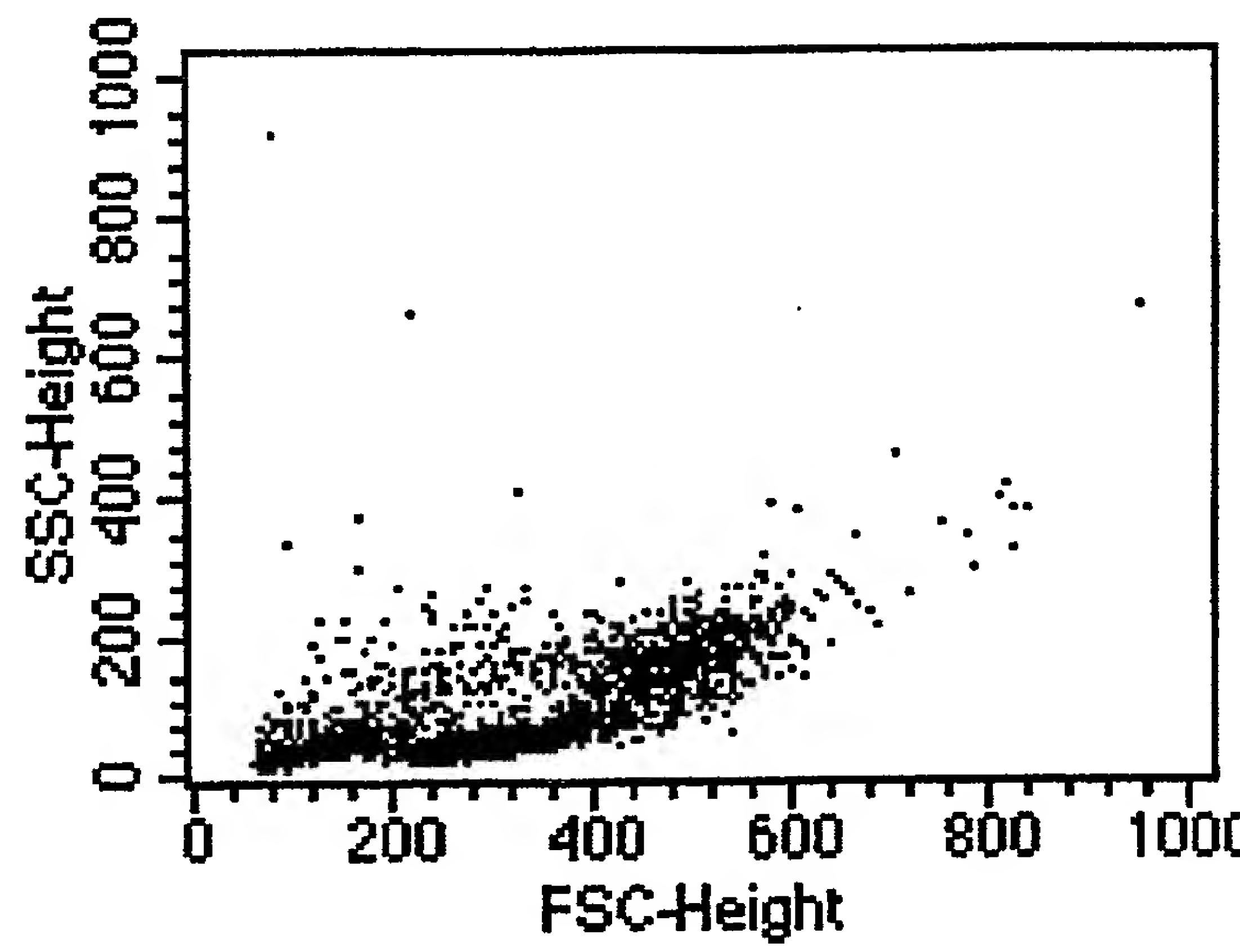
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

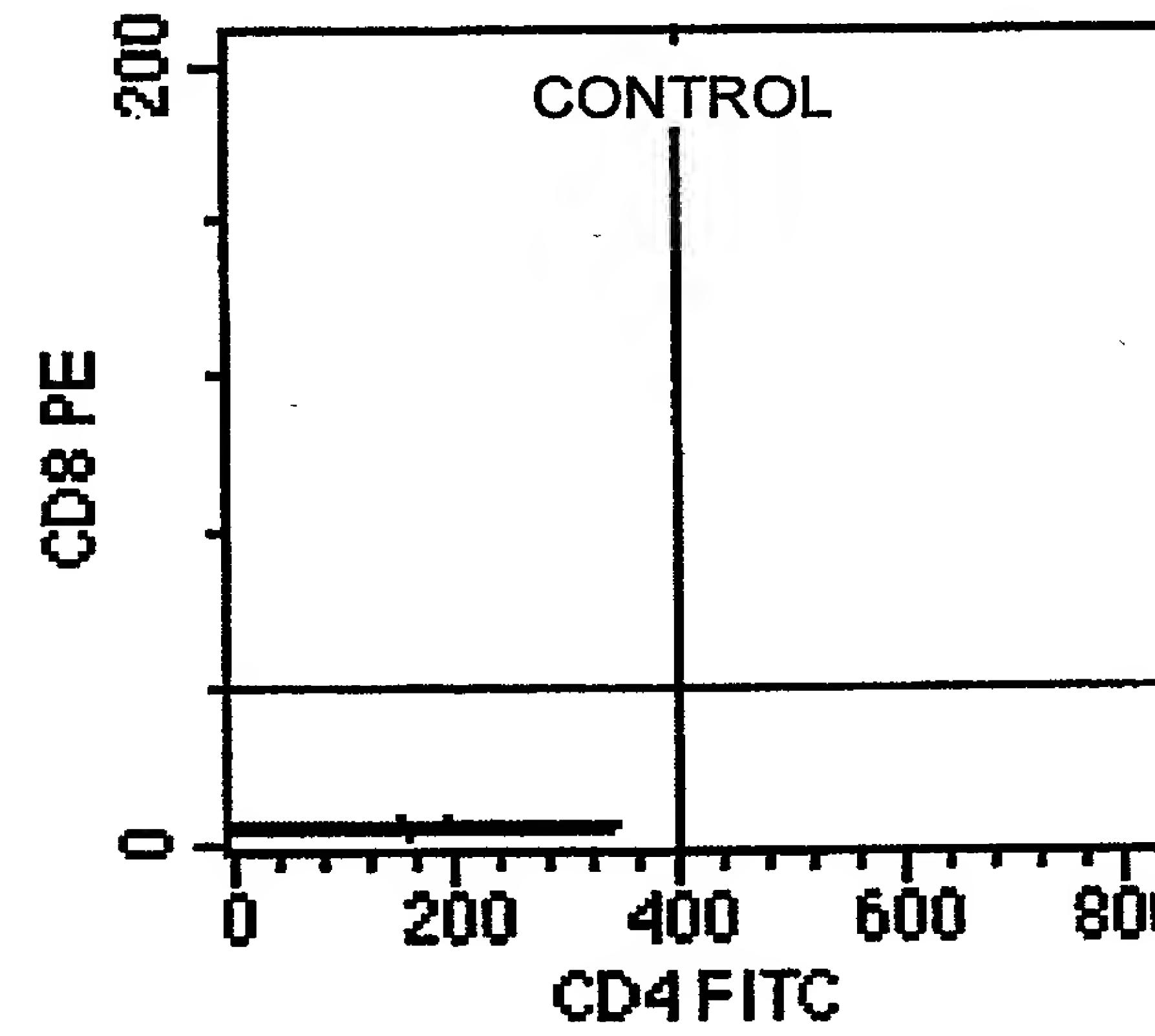
Leydig, Voit & Mayer, Ltd.

202-737-6770

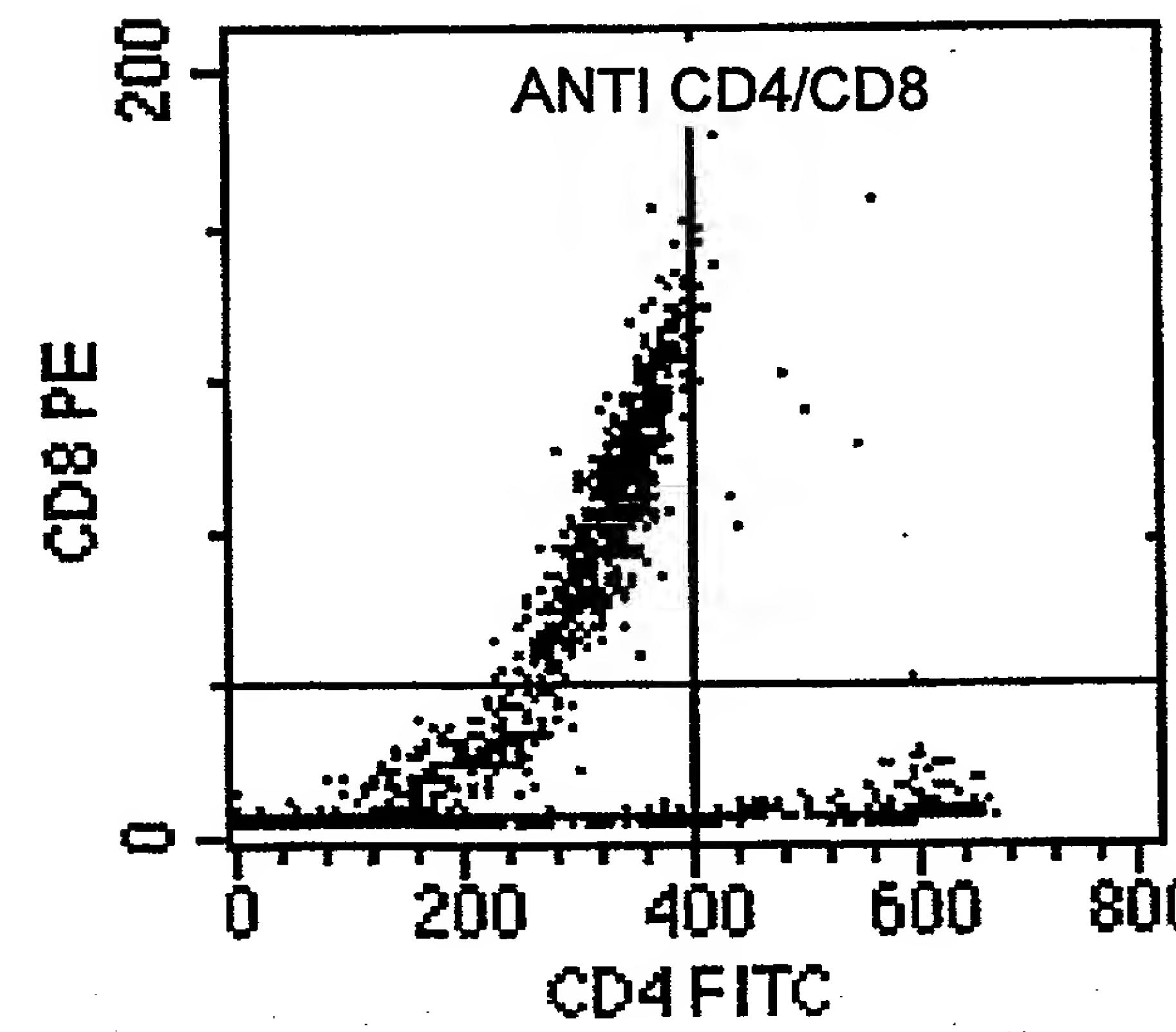
**Fig.54**



**Fig.55**

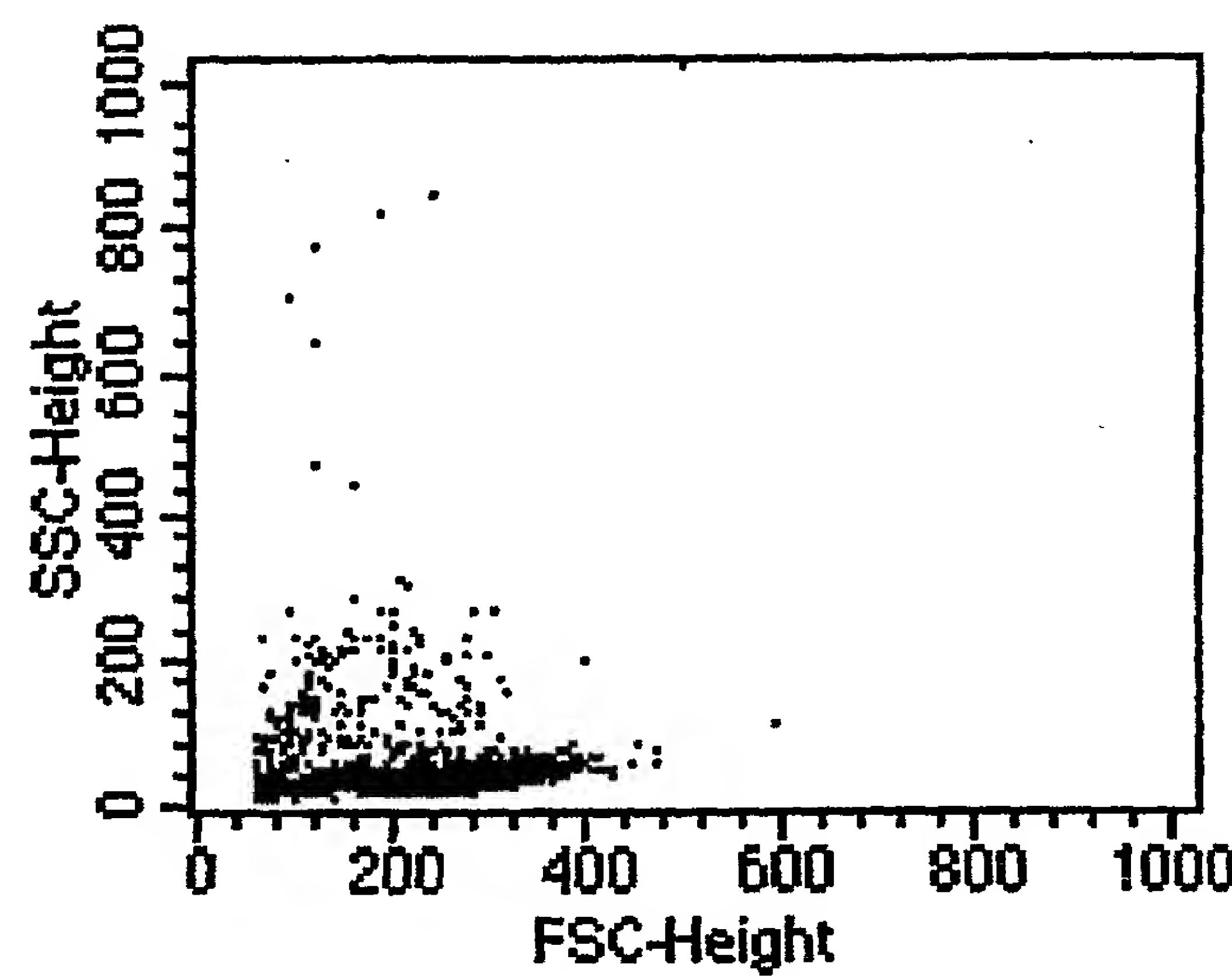


**Fig.56**

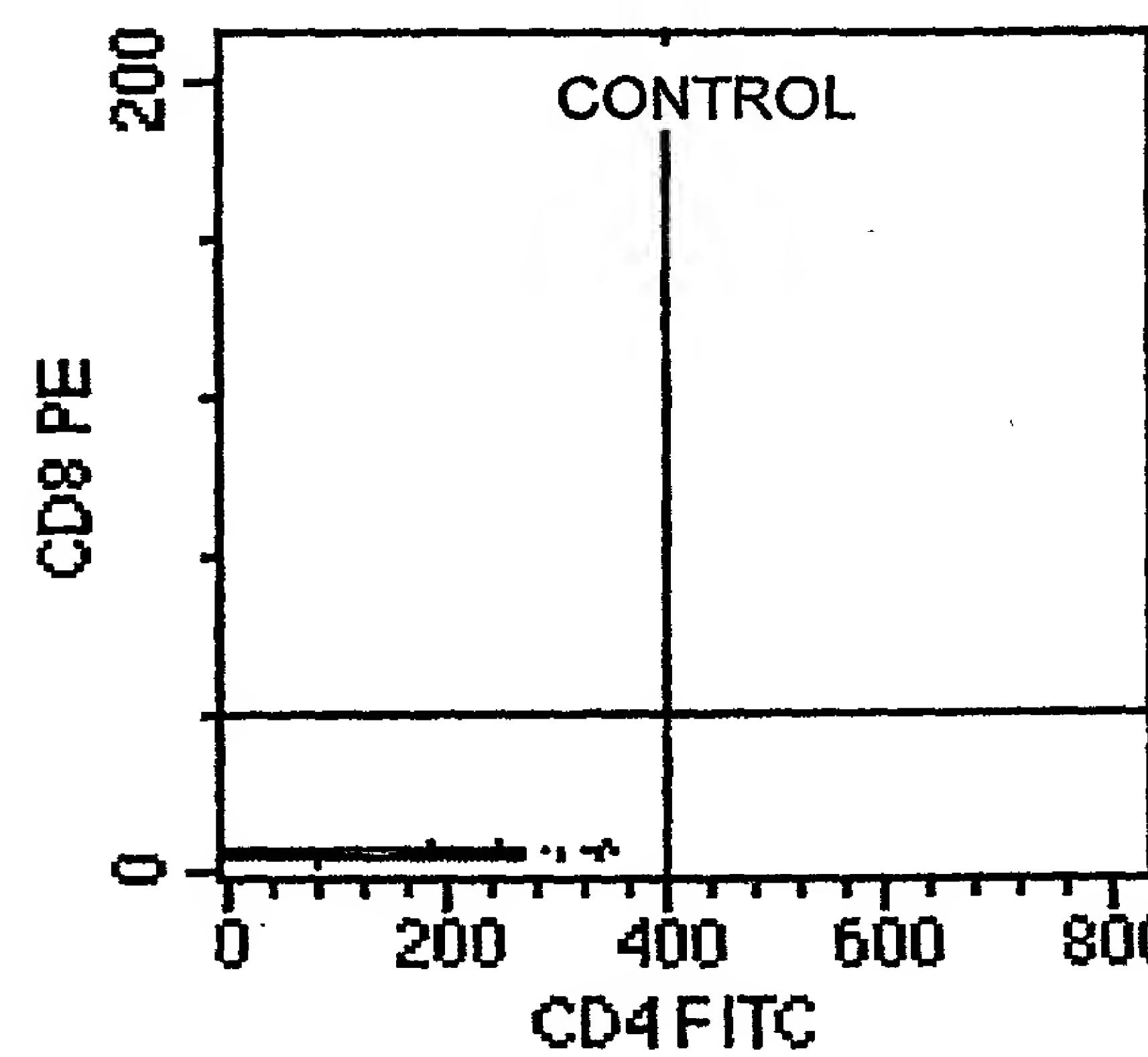


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOE1  
Leydig, Voit & Mayer, Ltd.  
202-737-6770

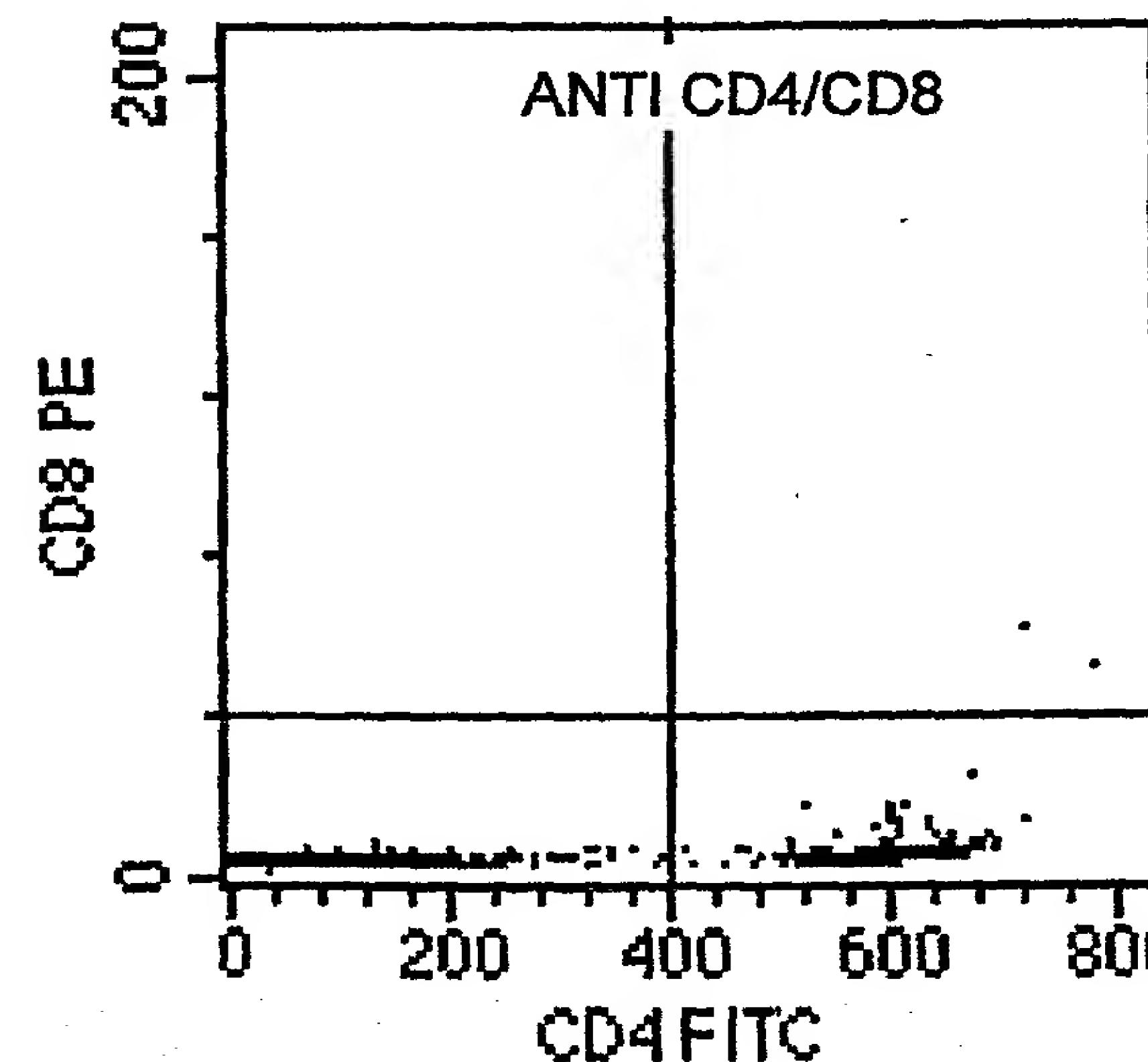
**Fig.57**



**Fig.58**

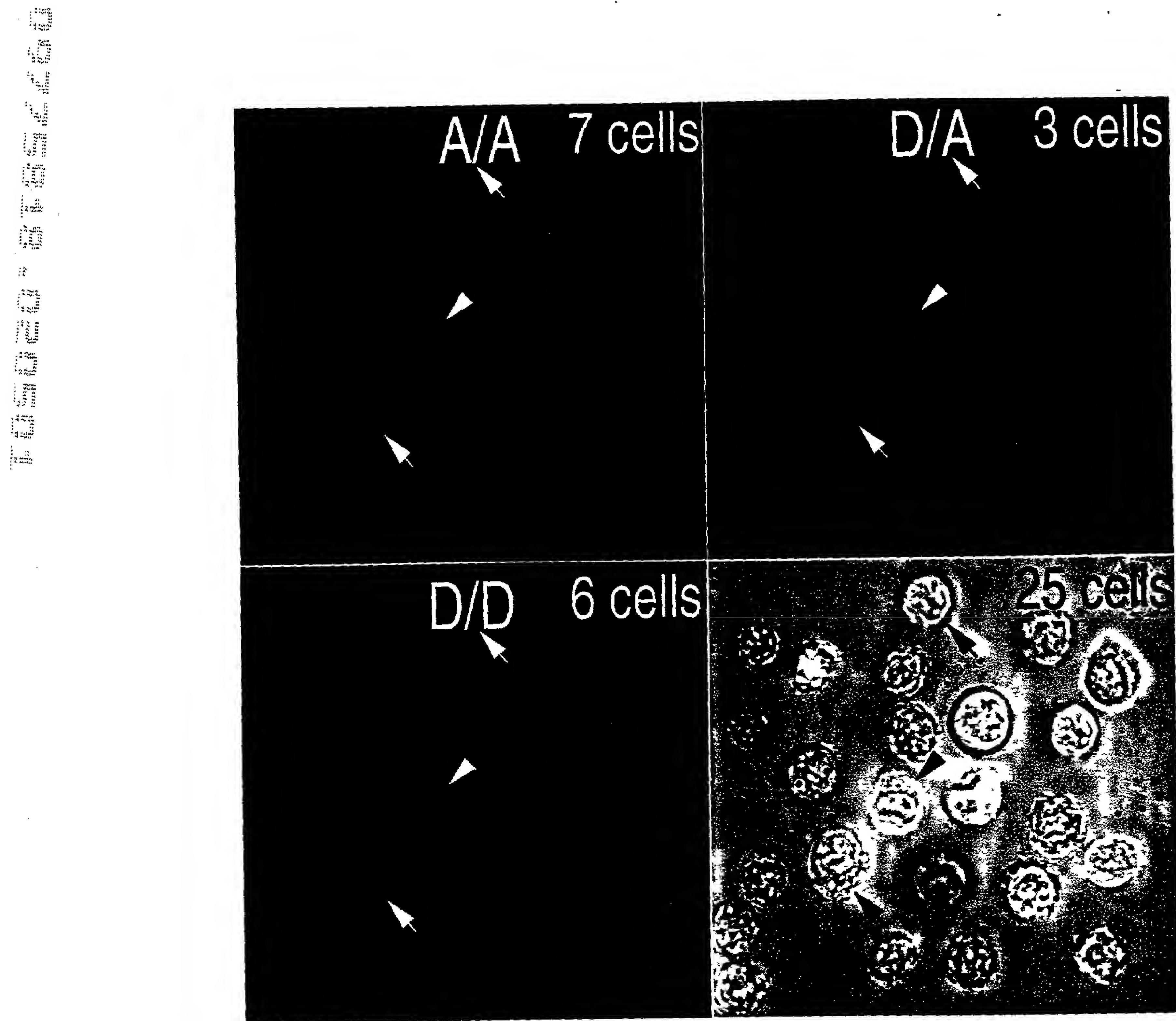


**Fig.59**



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
Leydig, Voit & Mayer, Ltd.  
202-737-6770

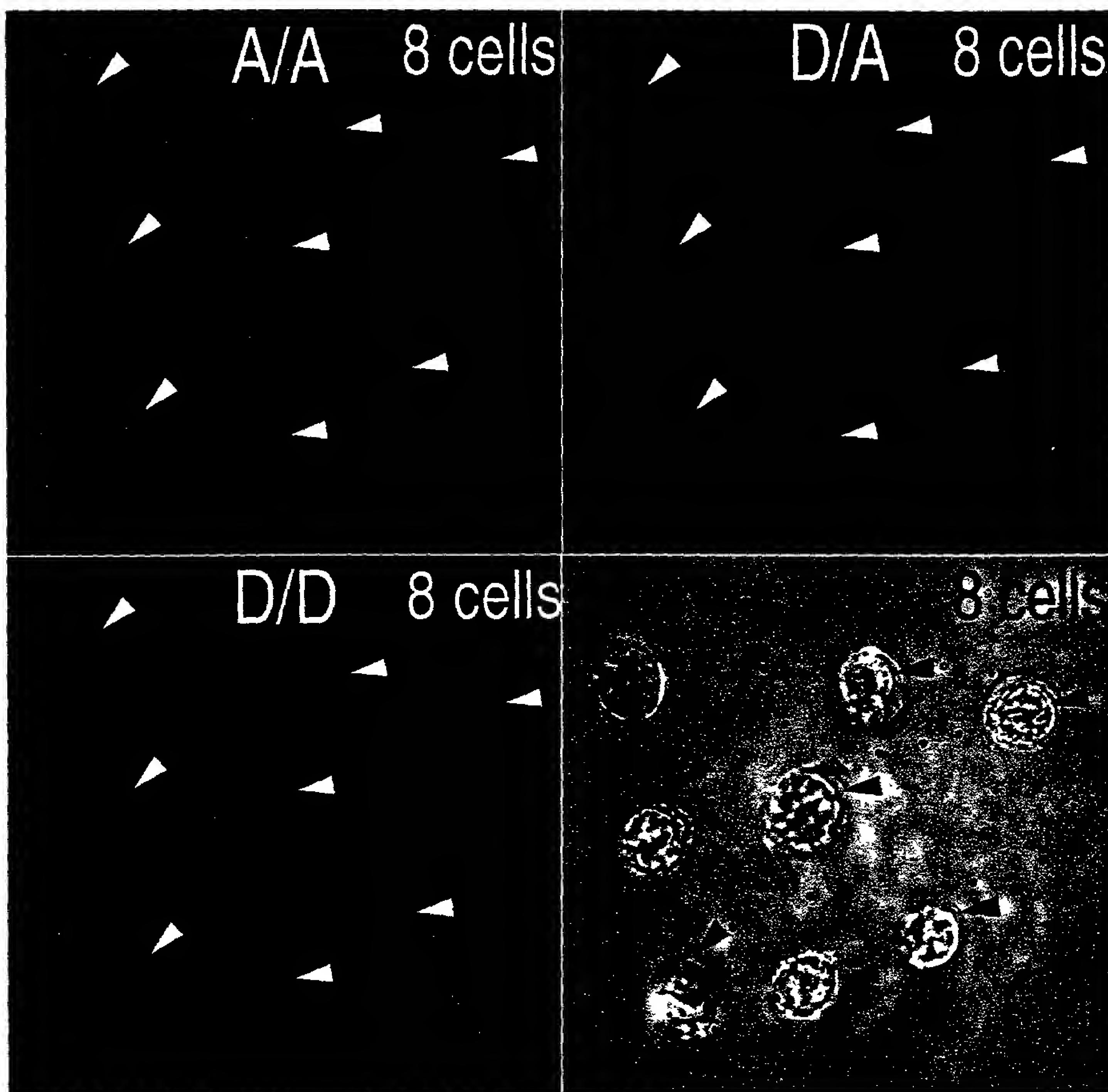
**Fig. 60**



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
Leydig, Voit & Mayer, Ltd.  
202-737-6770

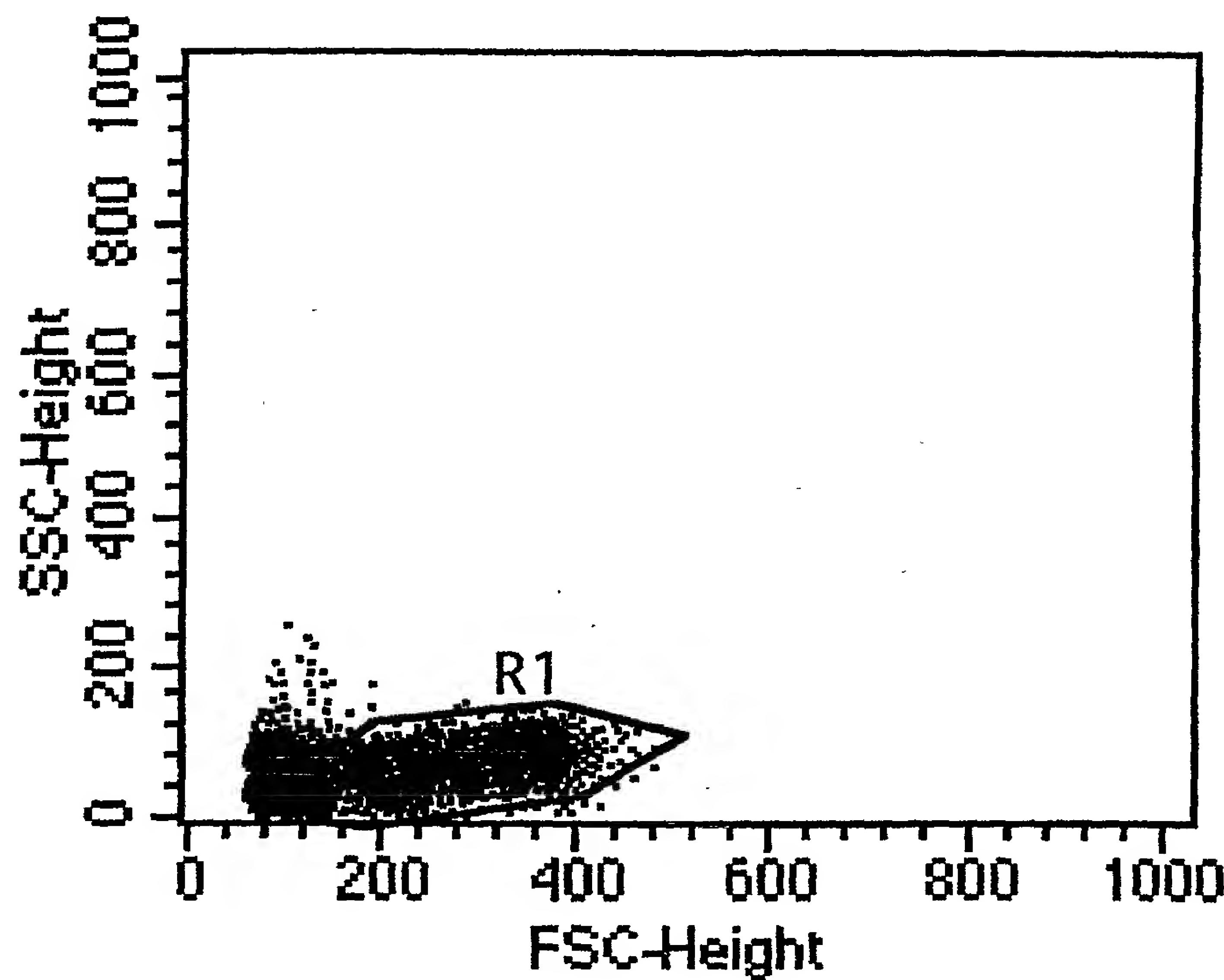
**Fig. 61**

Method For Selectively Separating Live Cells Expressing A Specific Gene

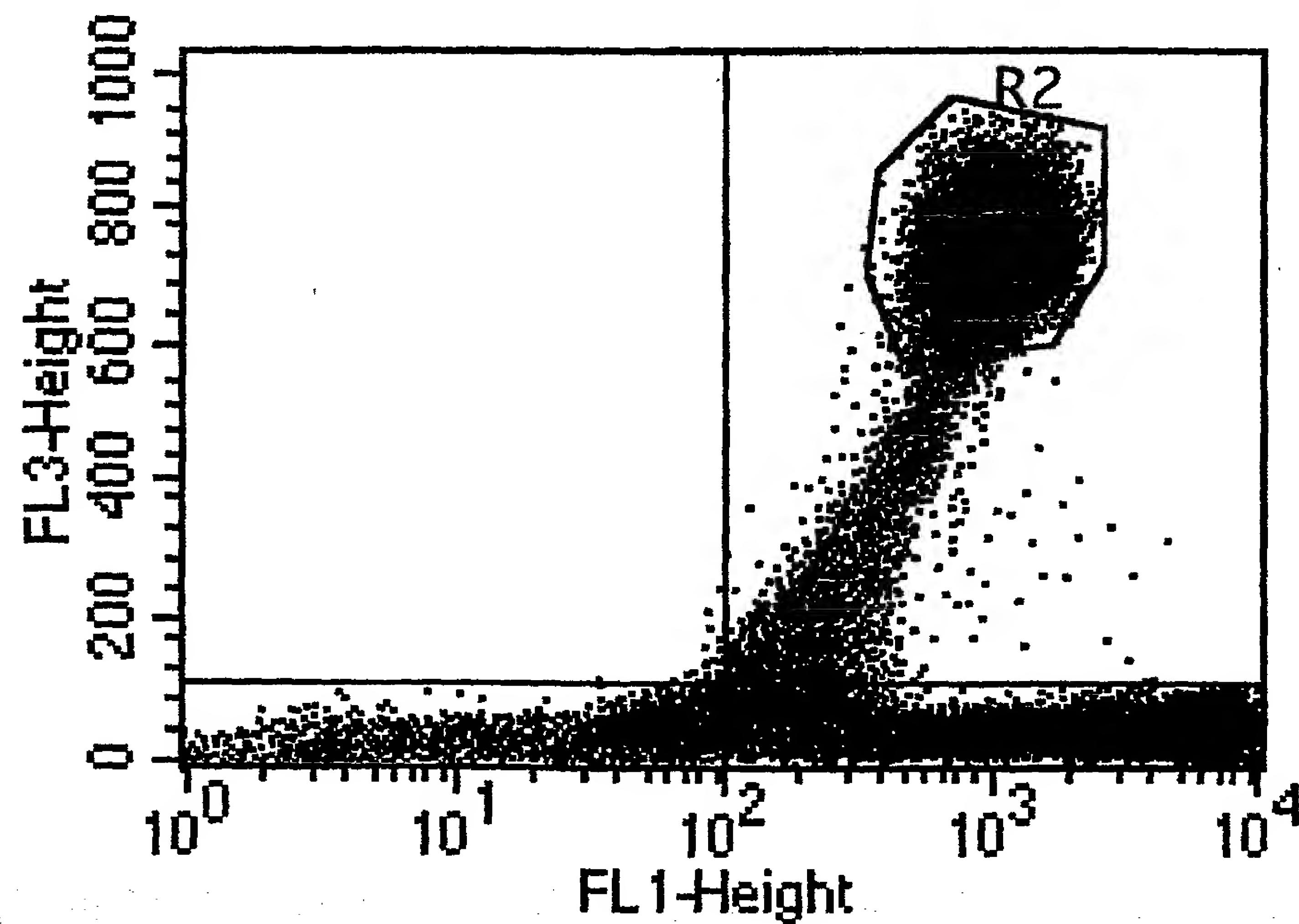


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Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig.62**

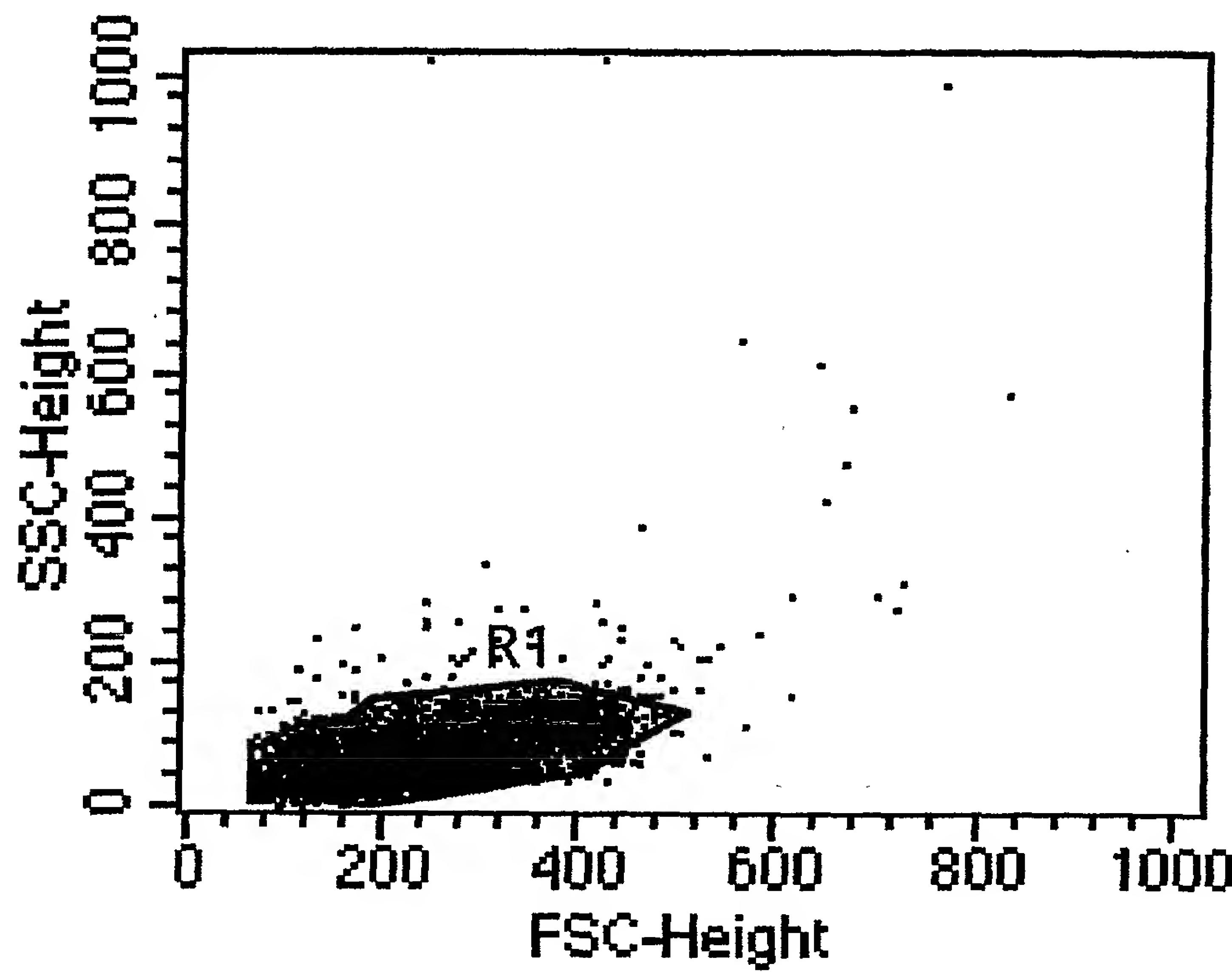


**Fig.63**

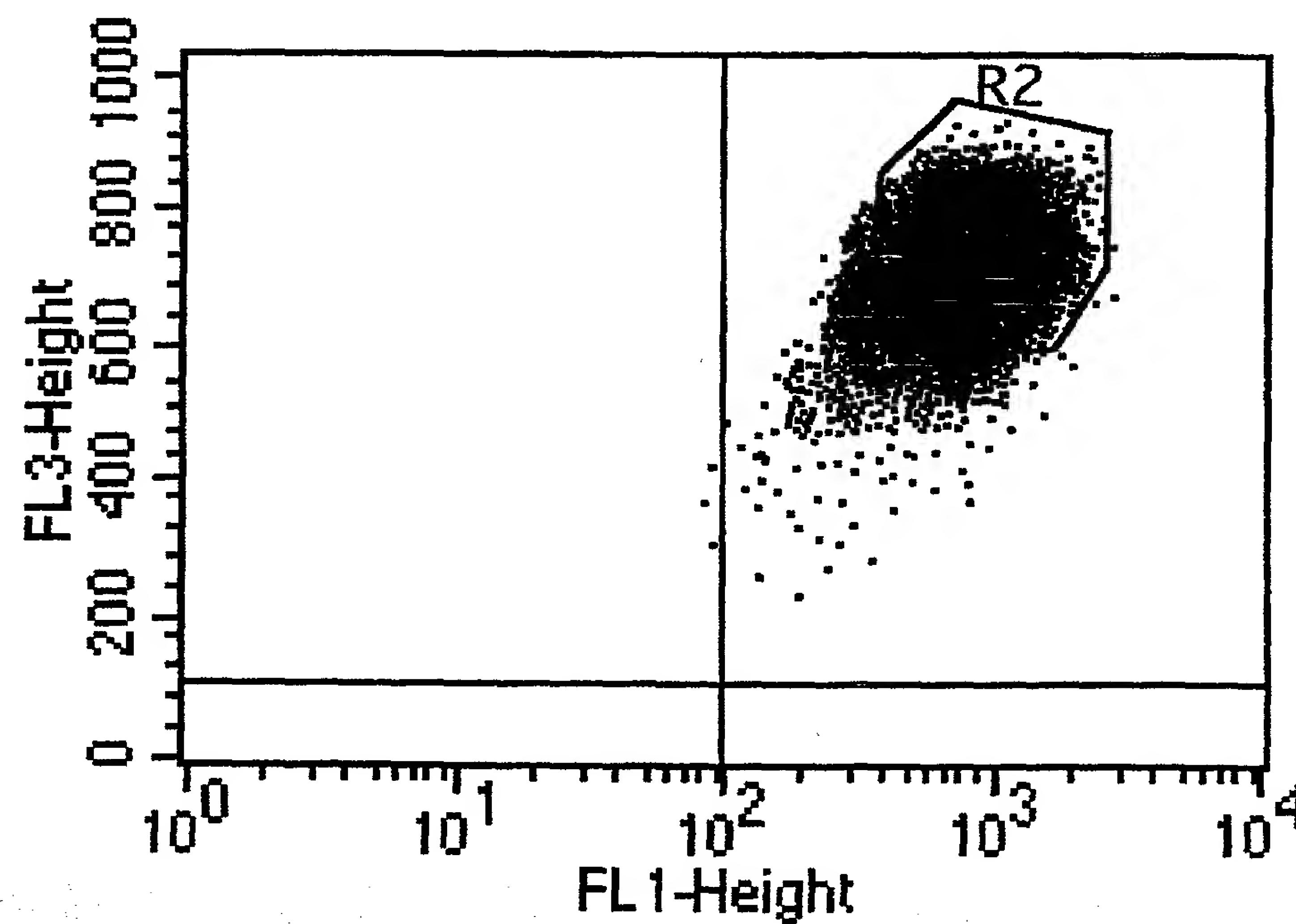


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig. 64**

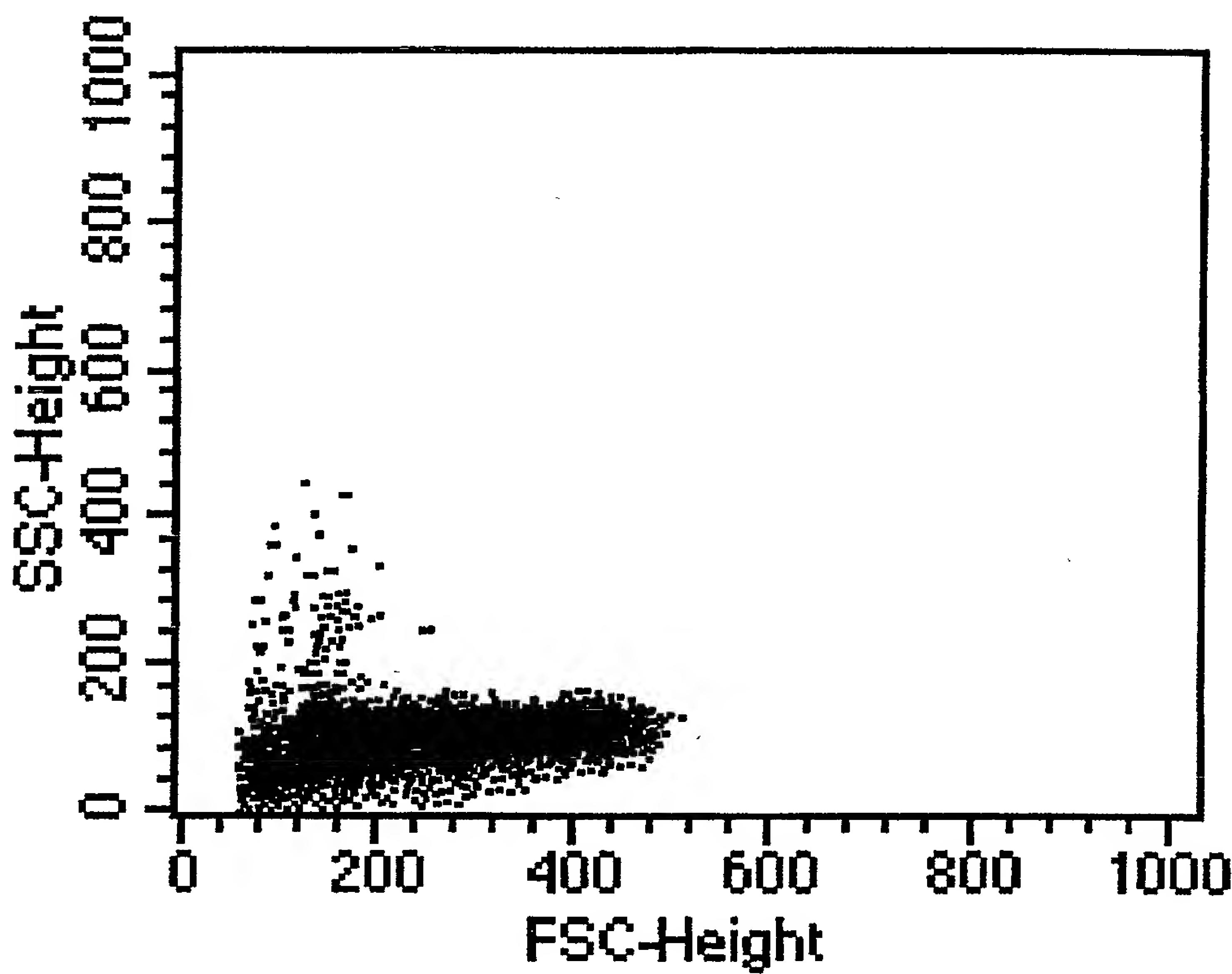


**Fig. 65**

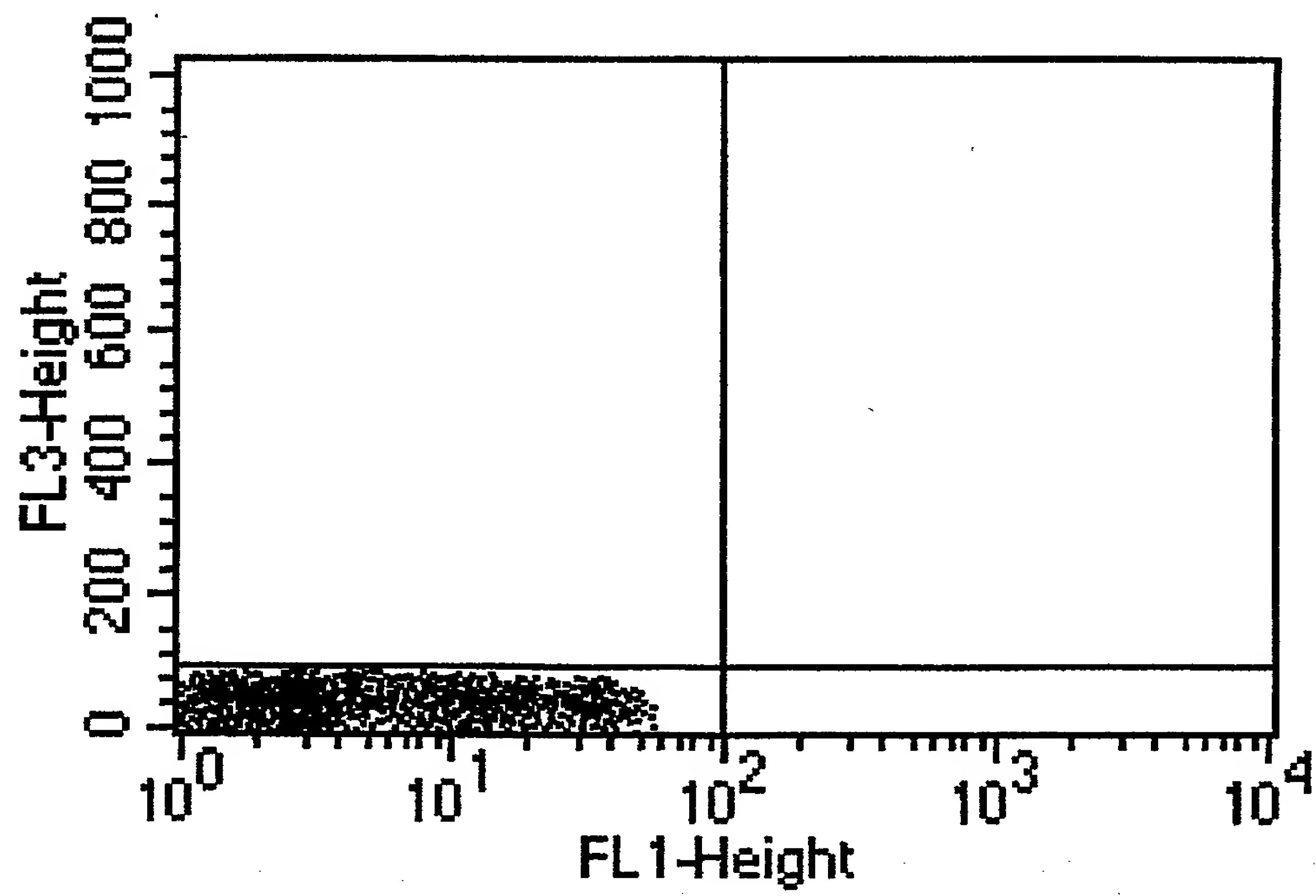


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig.66**

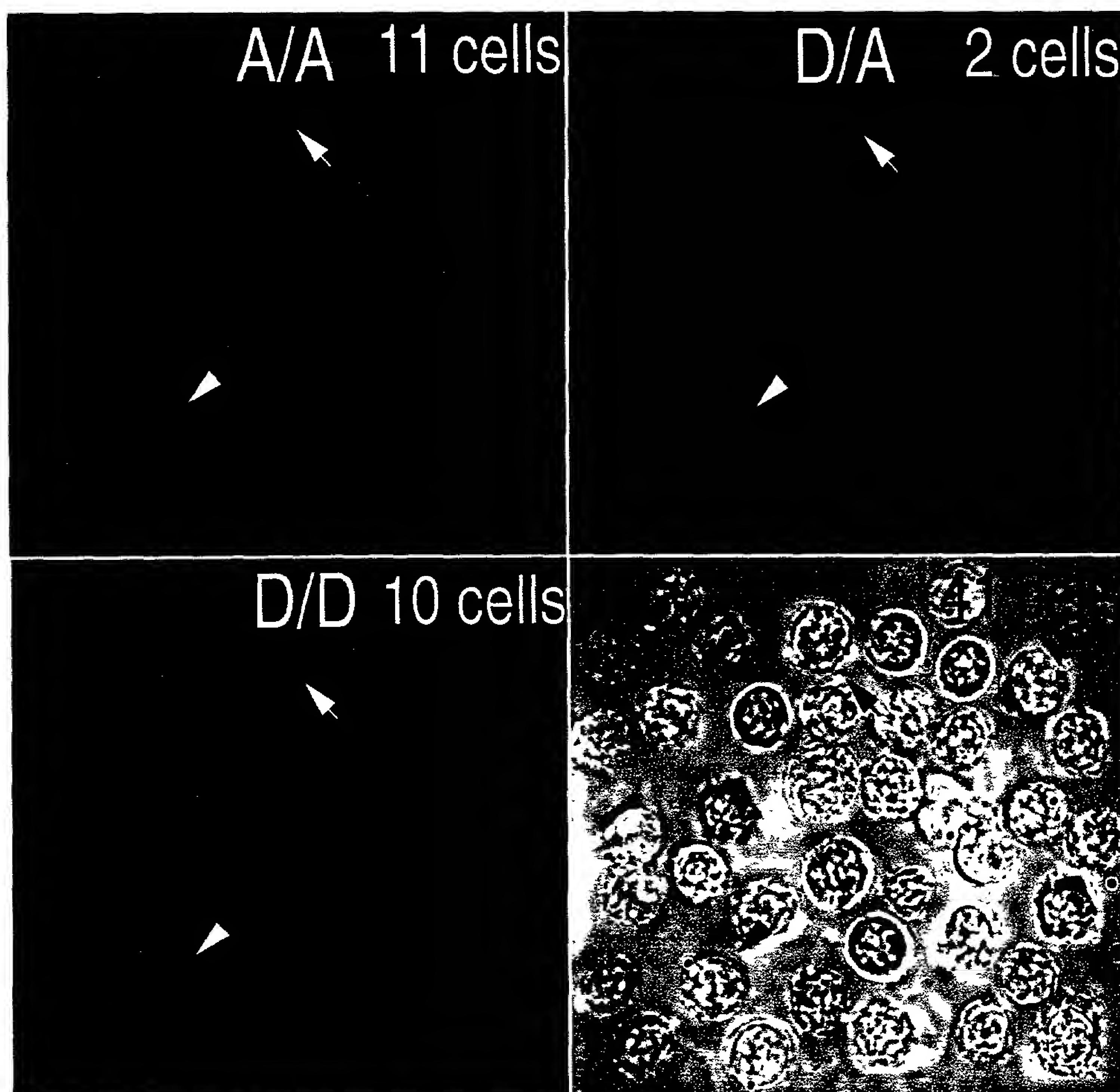


**Fig.67**

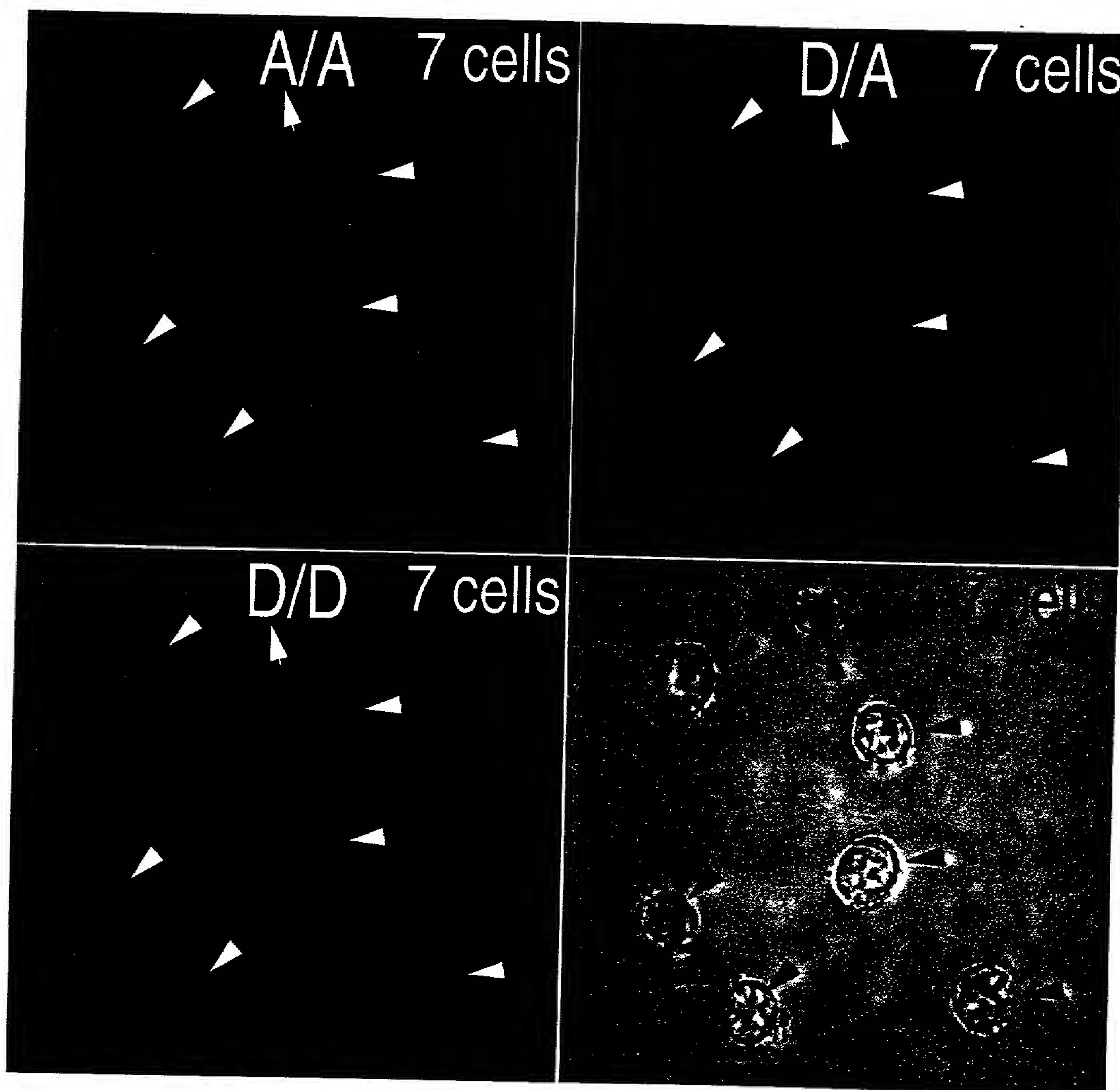


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig. 68**

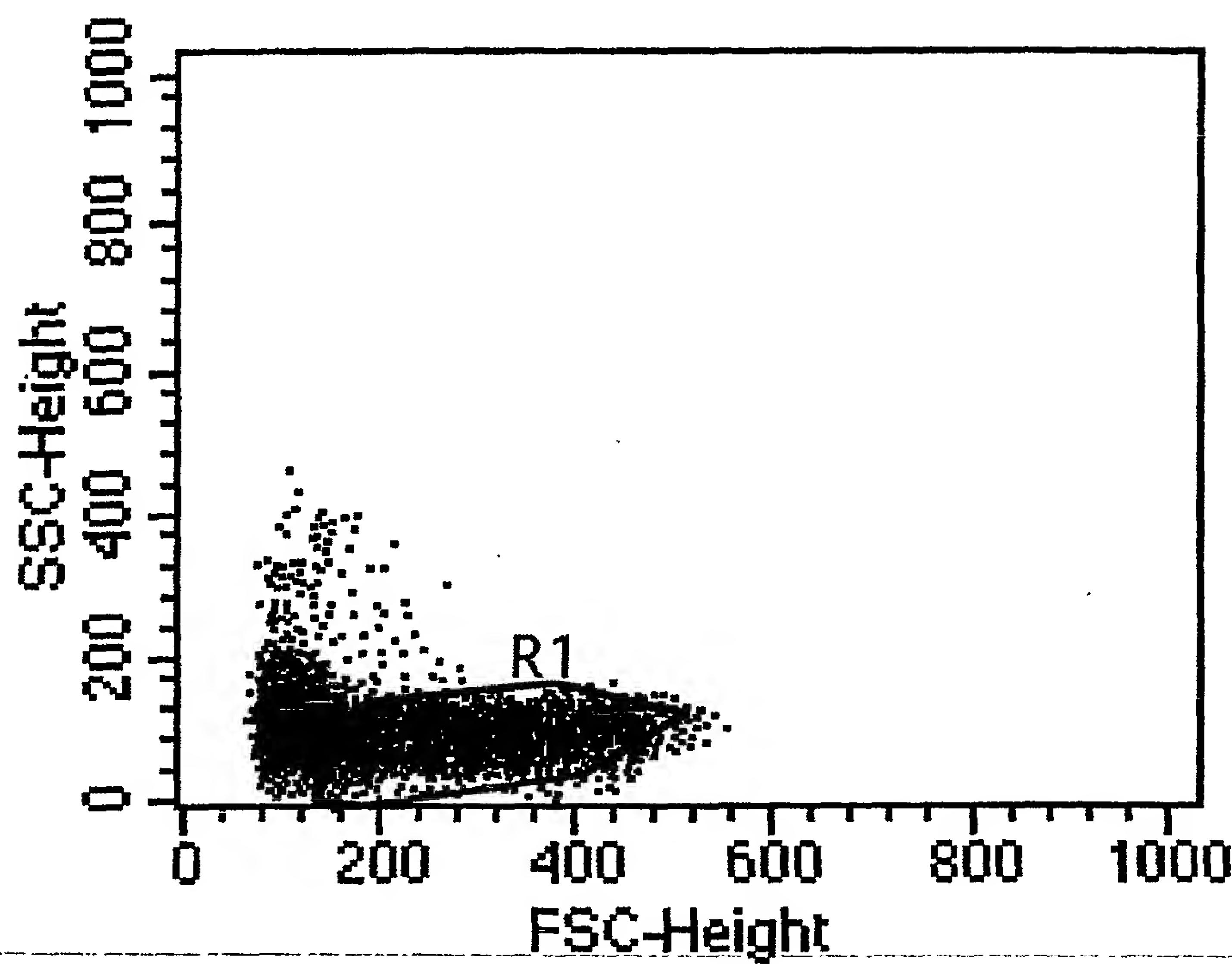


**Fig. 69**

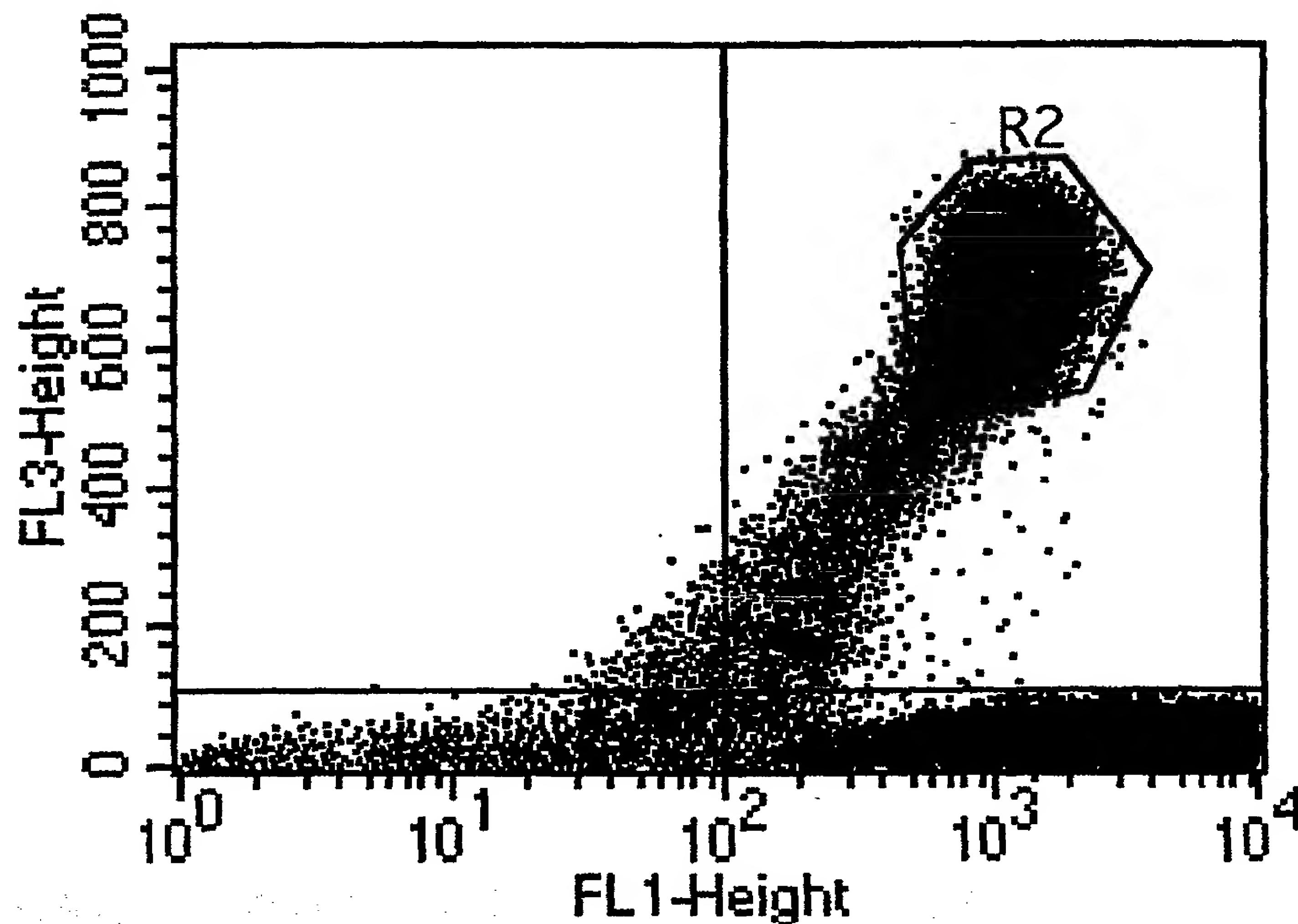


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig.70**

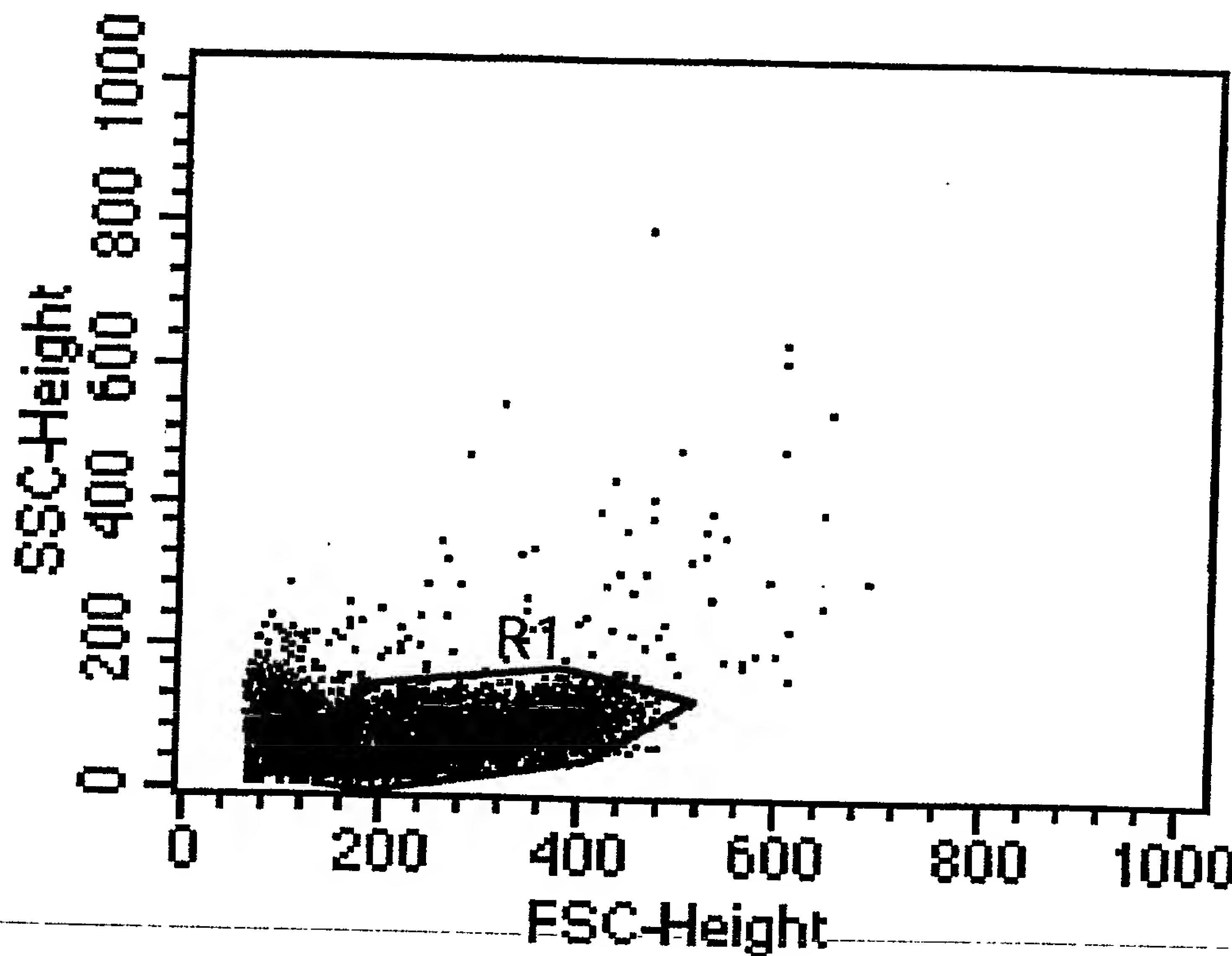


**Fig.71**

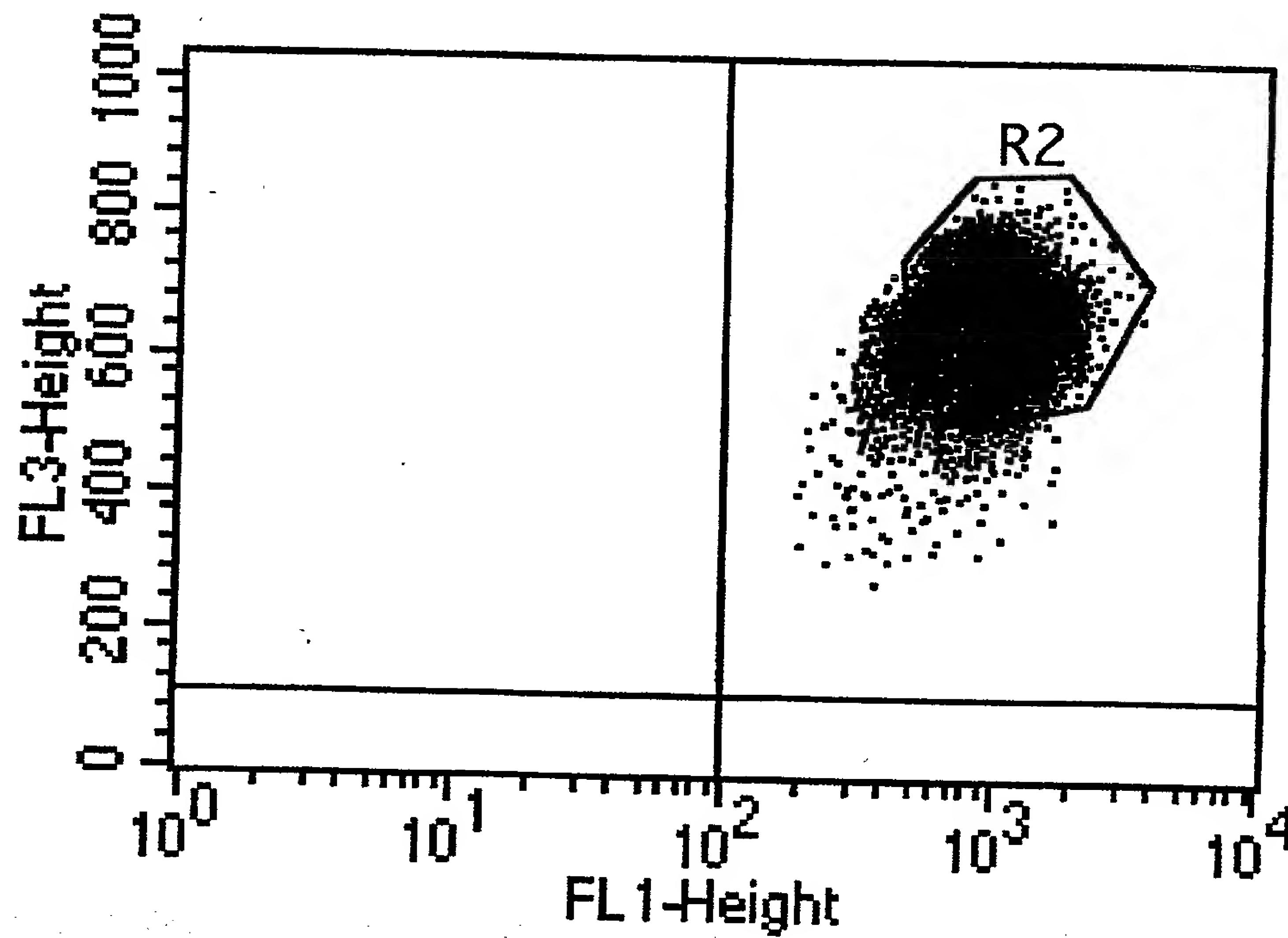


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig.72**

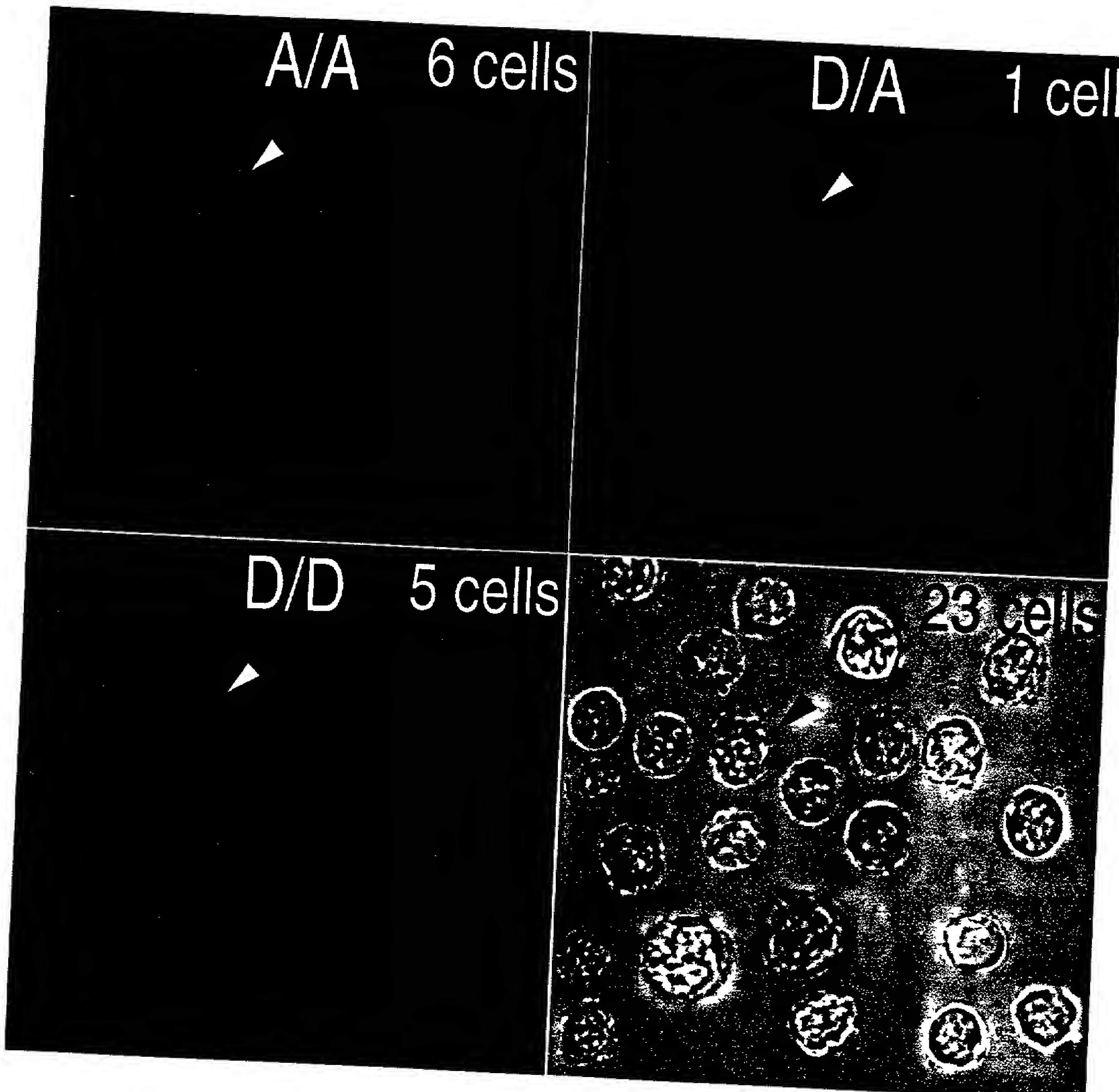


**Fig.73**

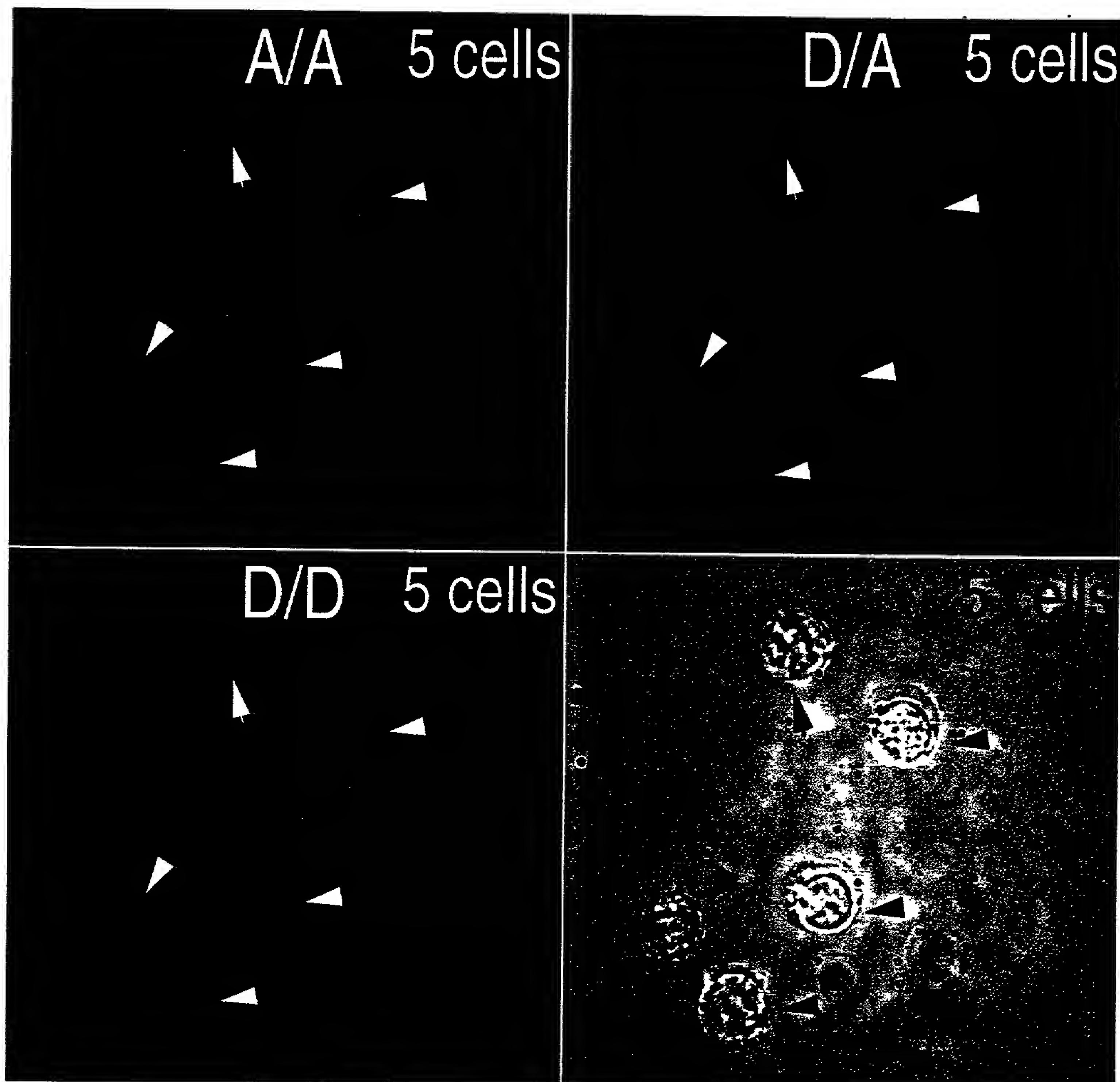


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig. 74**

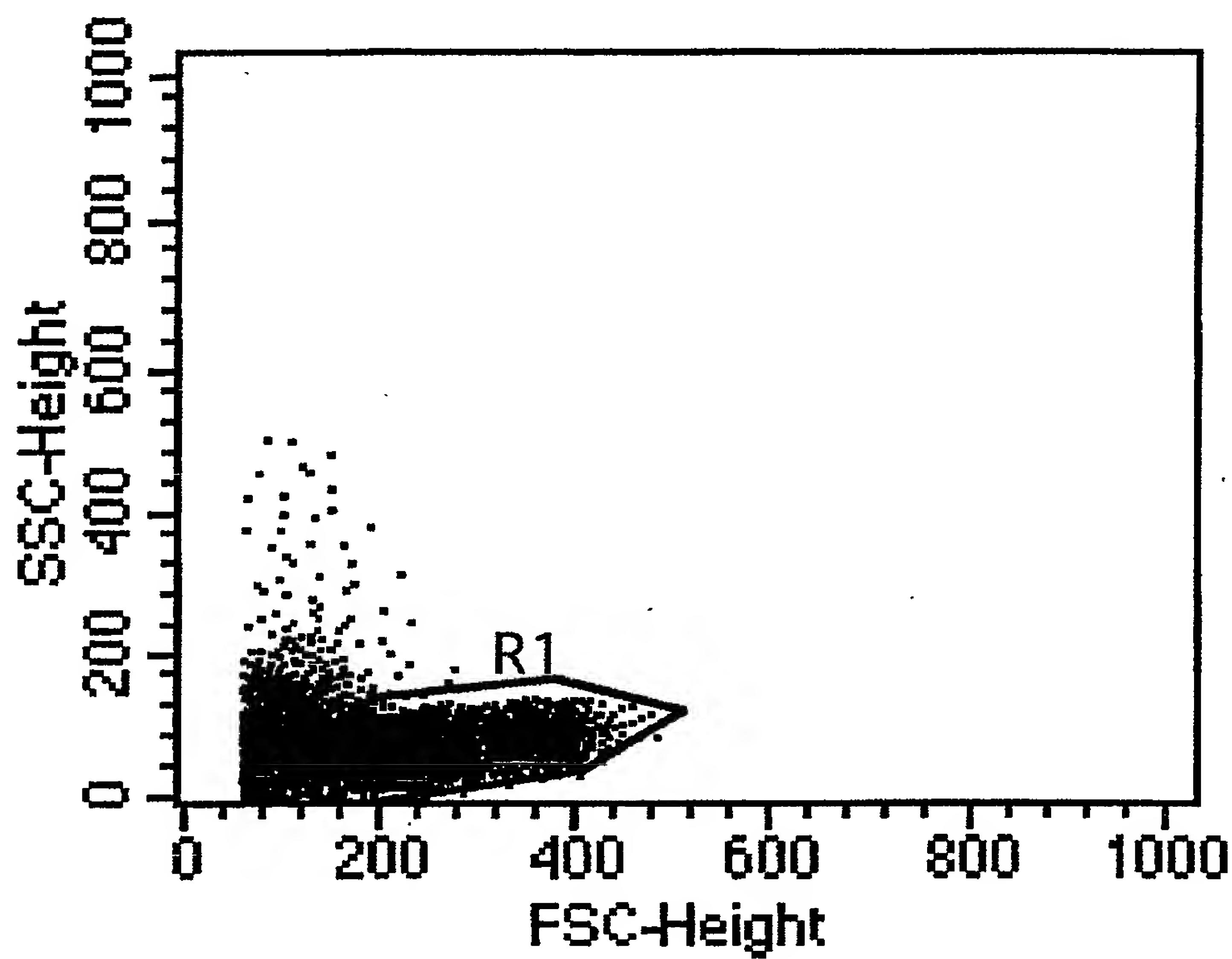


**Fig.75**

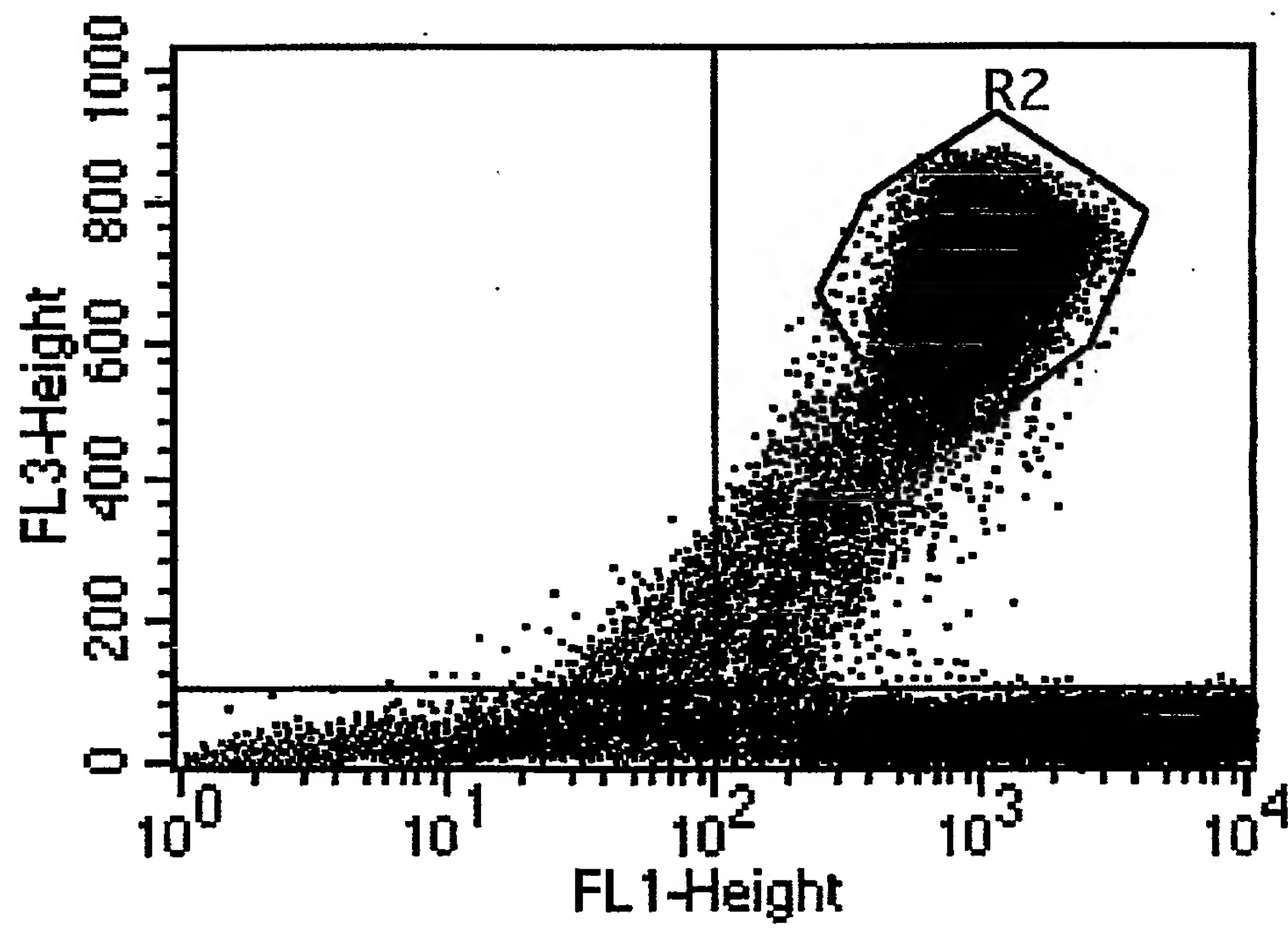


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Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig.76**



**Fig.77**



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

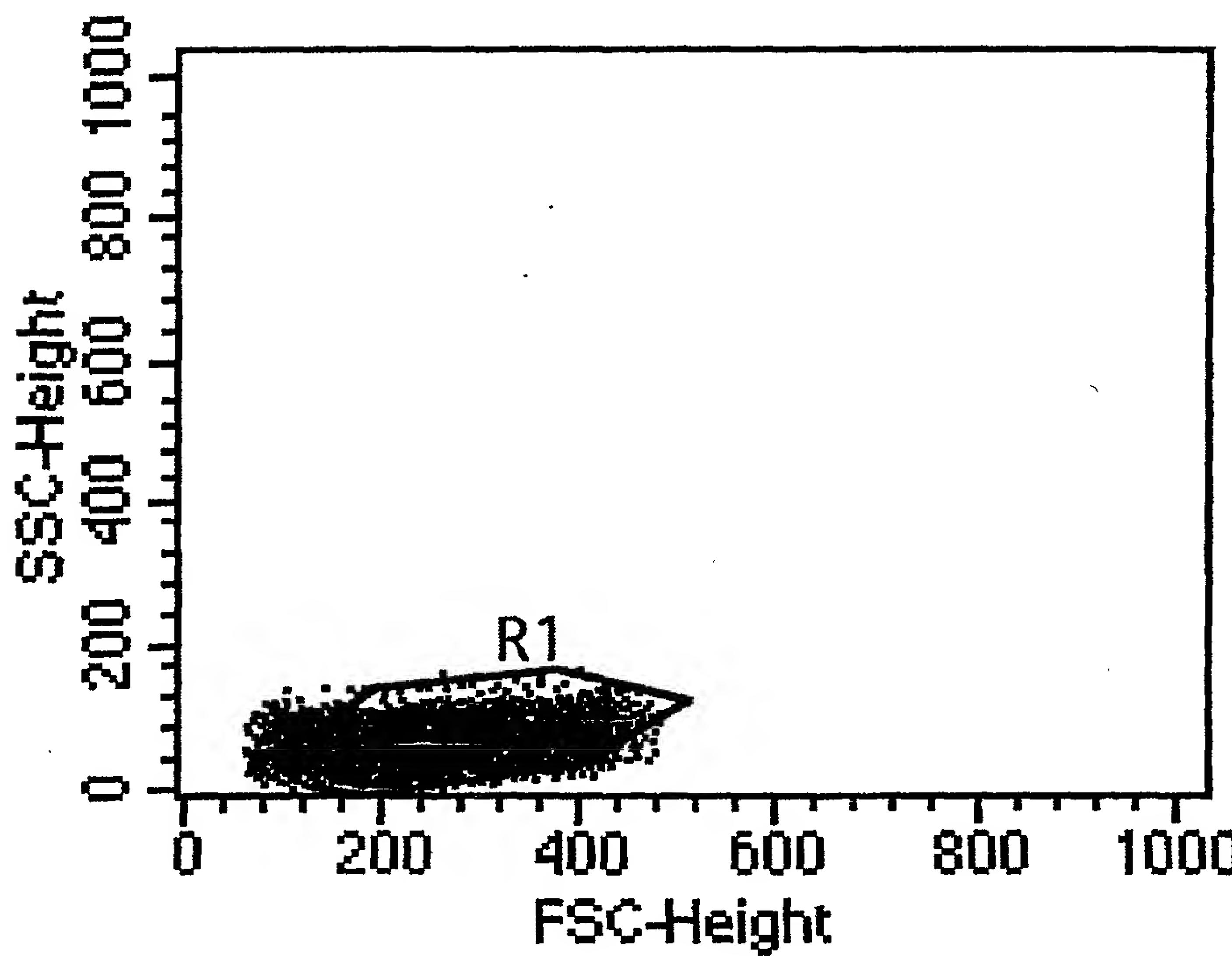
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

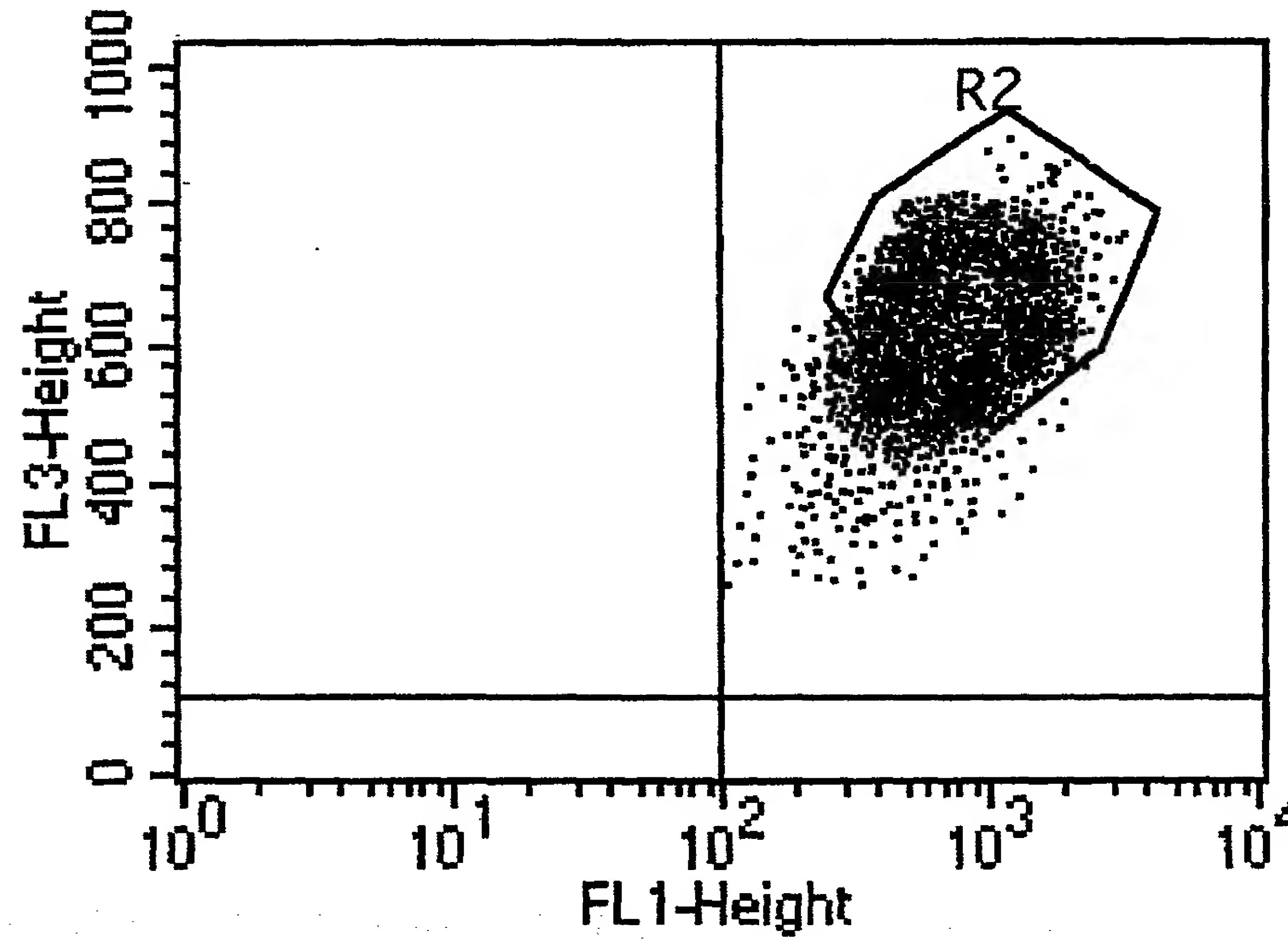
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**Fig.78**

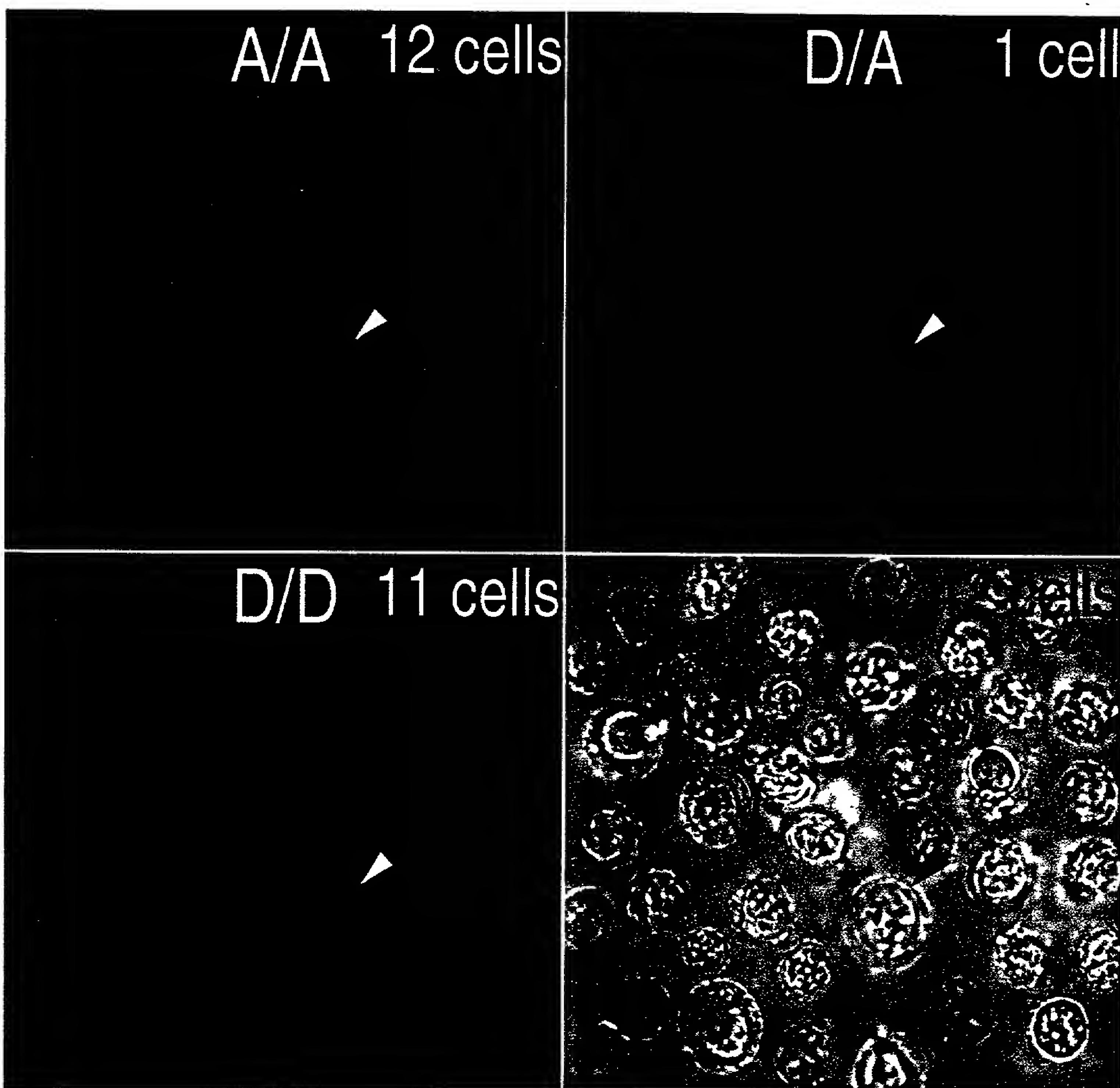


**Fig.79**

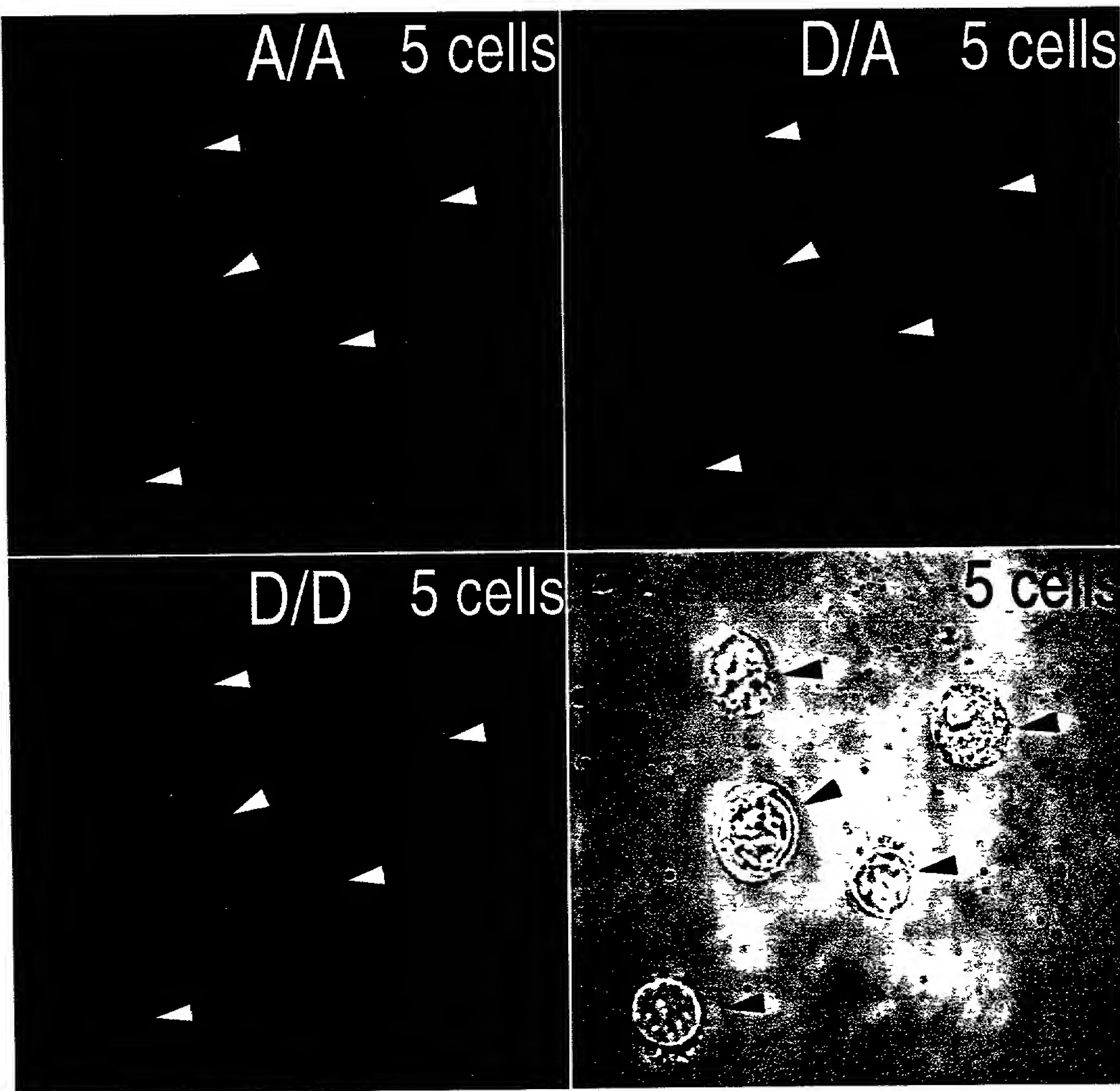


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Atty Docket No.: 400684/SOEI  
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**Fig.80**

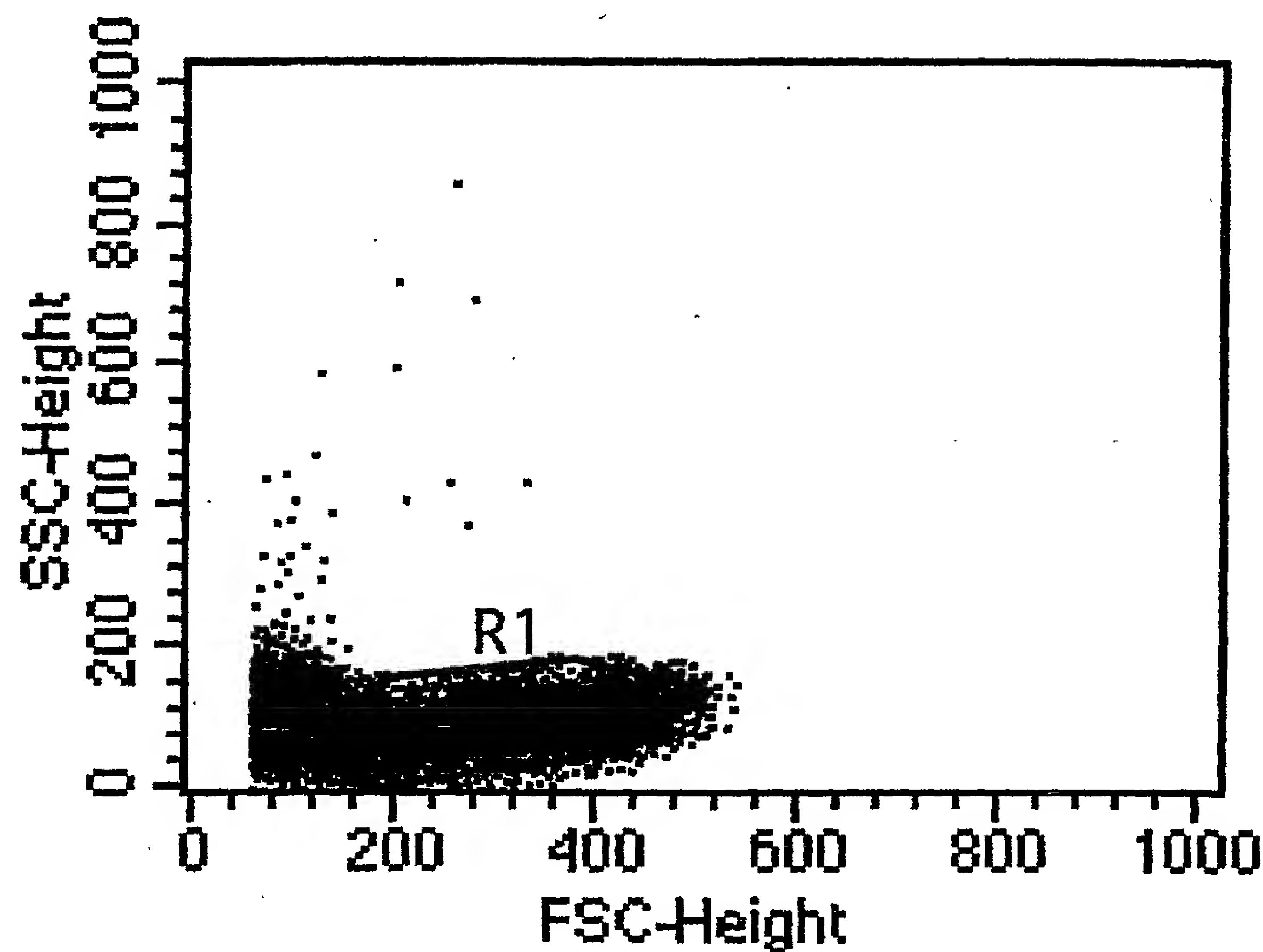


**Fig. 81**

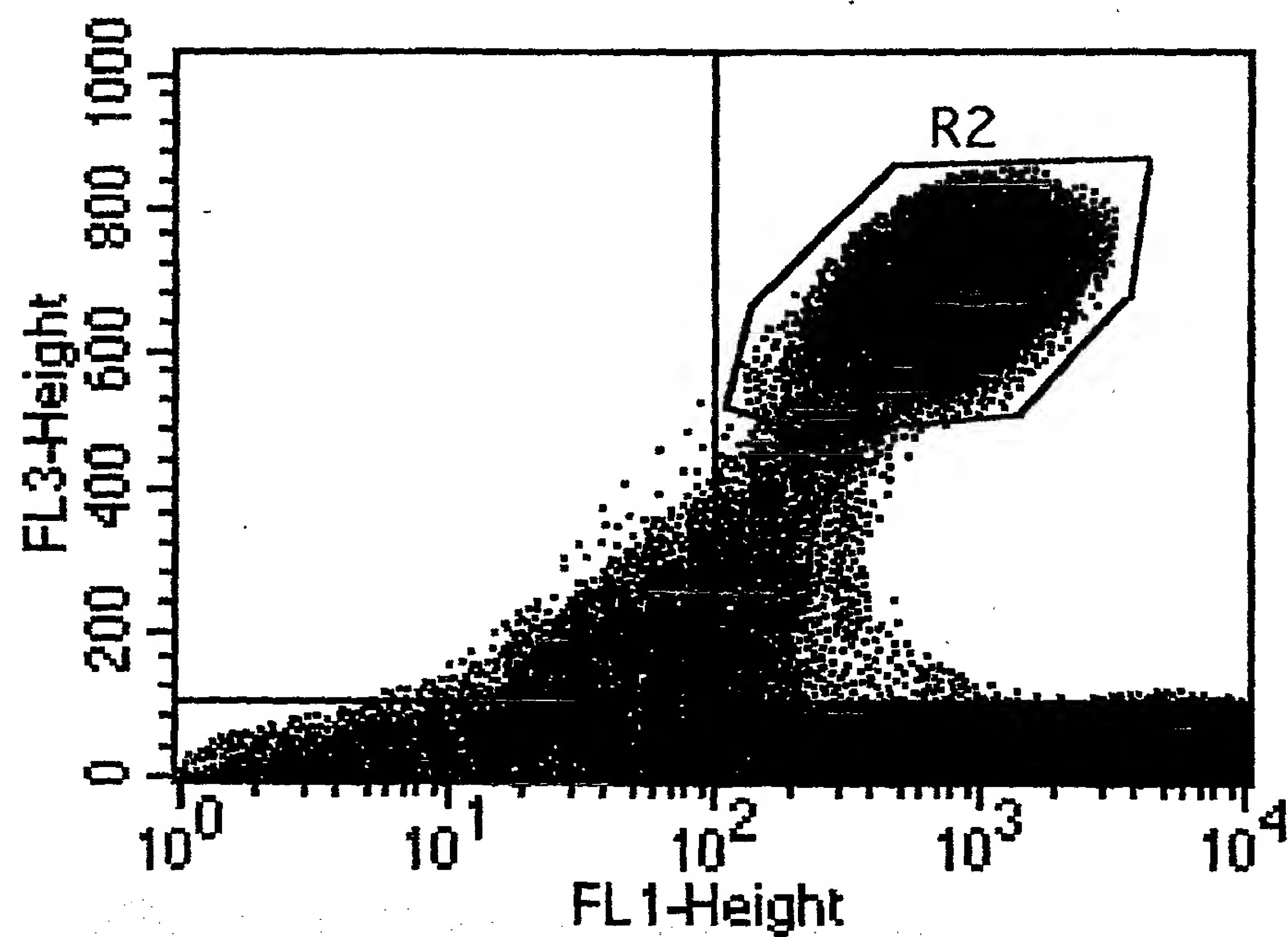


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig.82**

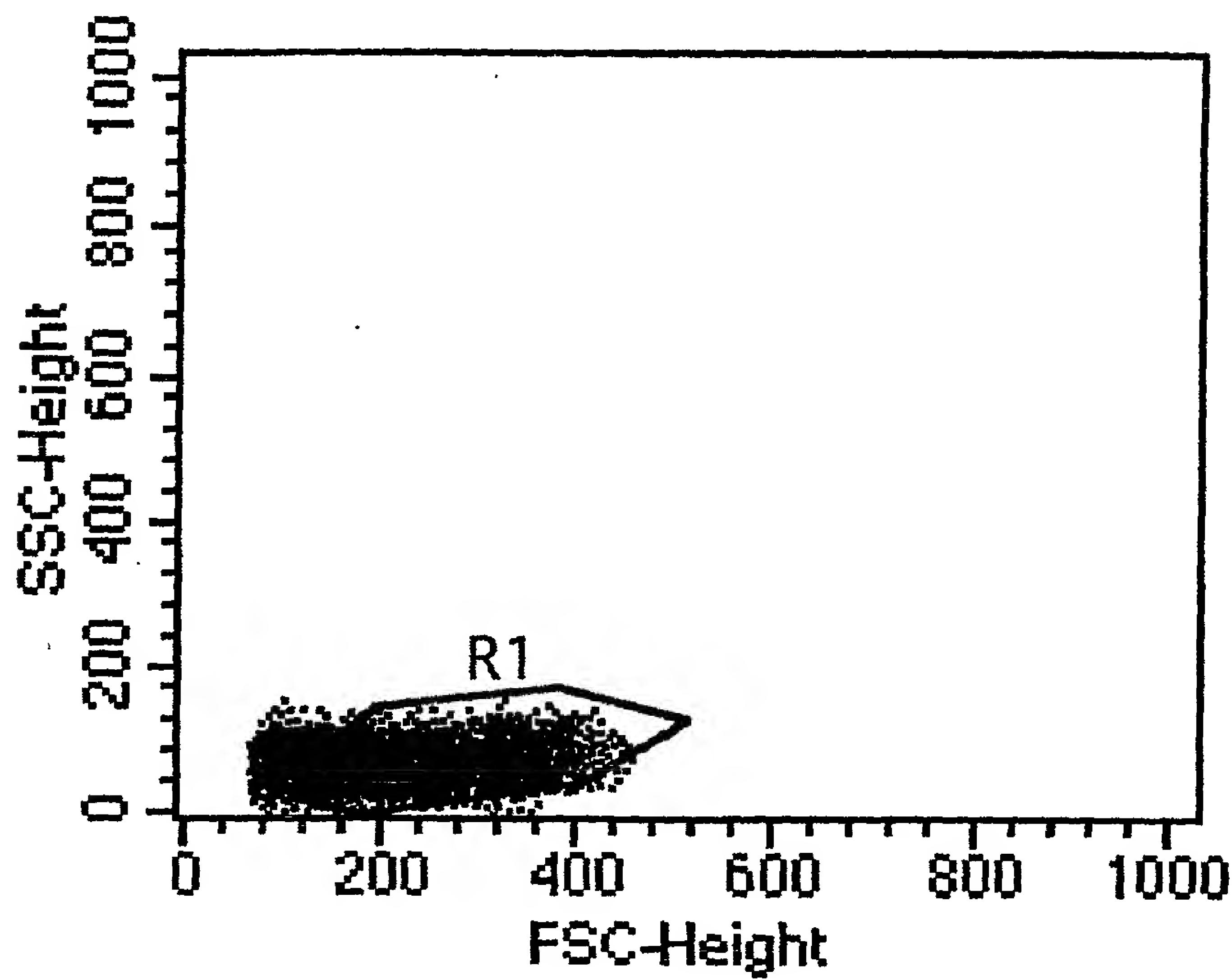


**Fig.83**

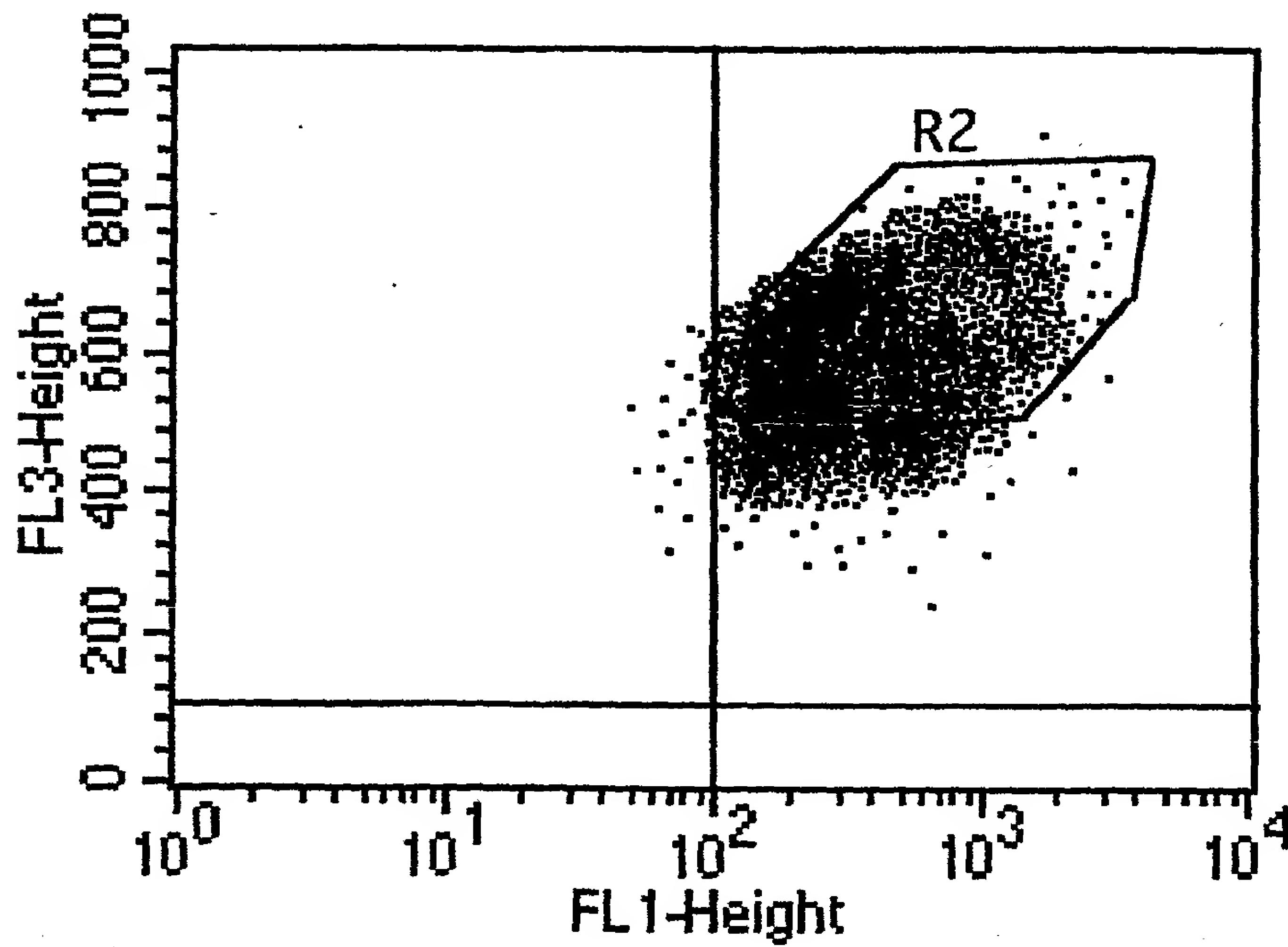


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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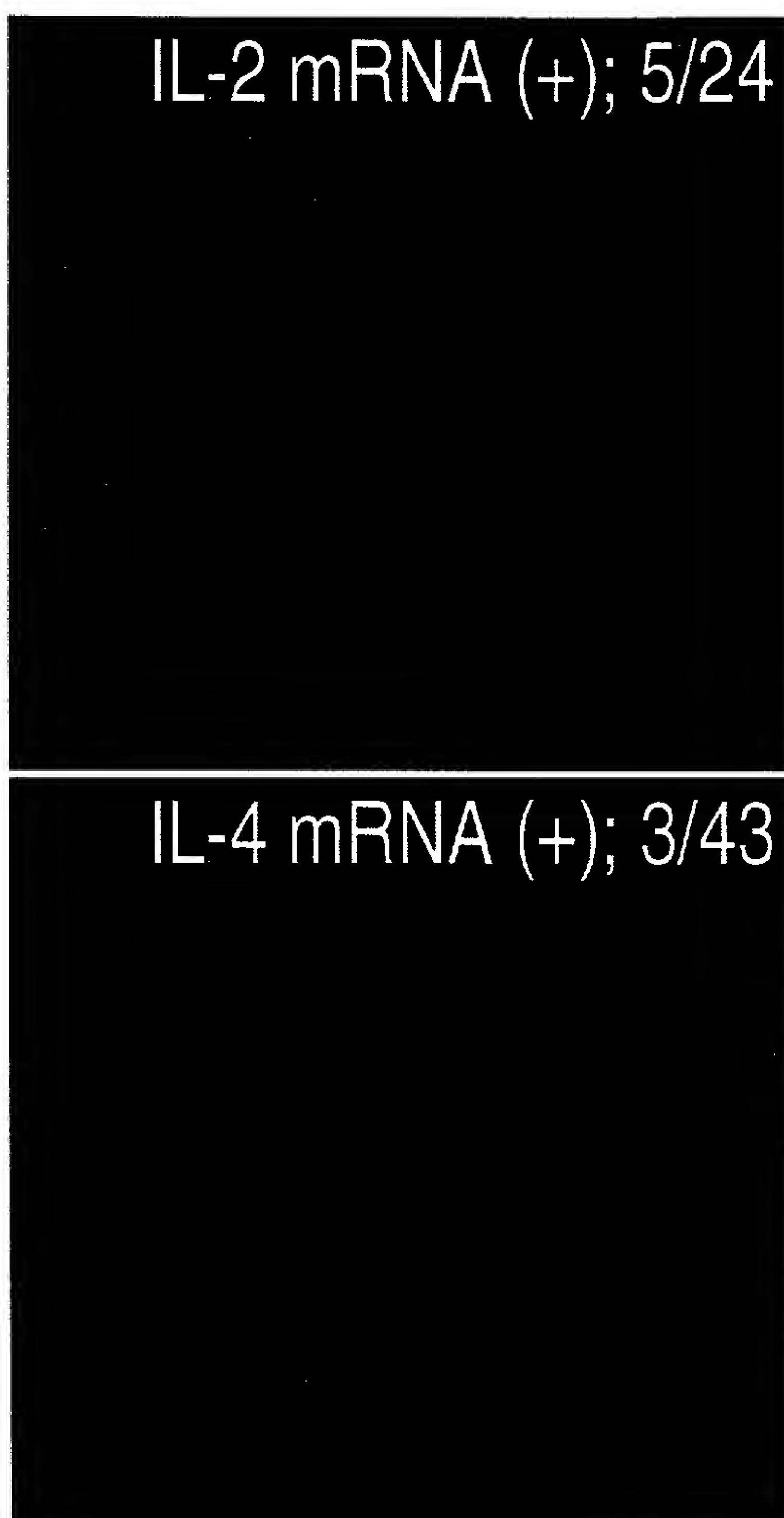
**Fig.84**



**Fig.85**

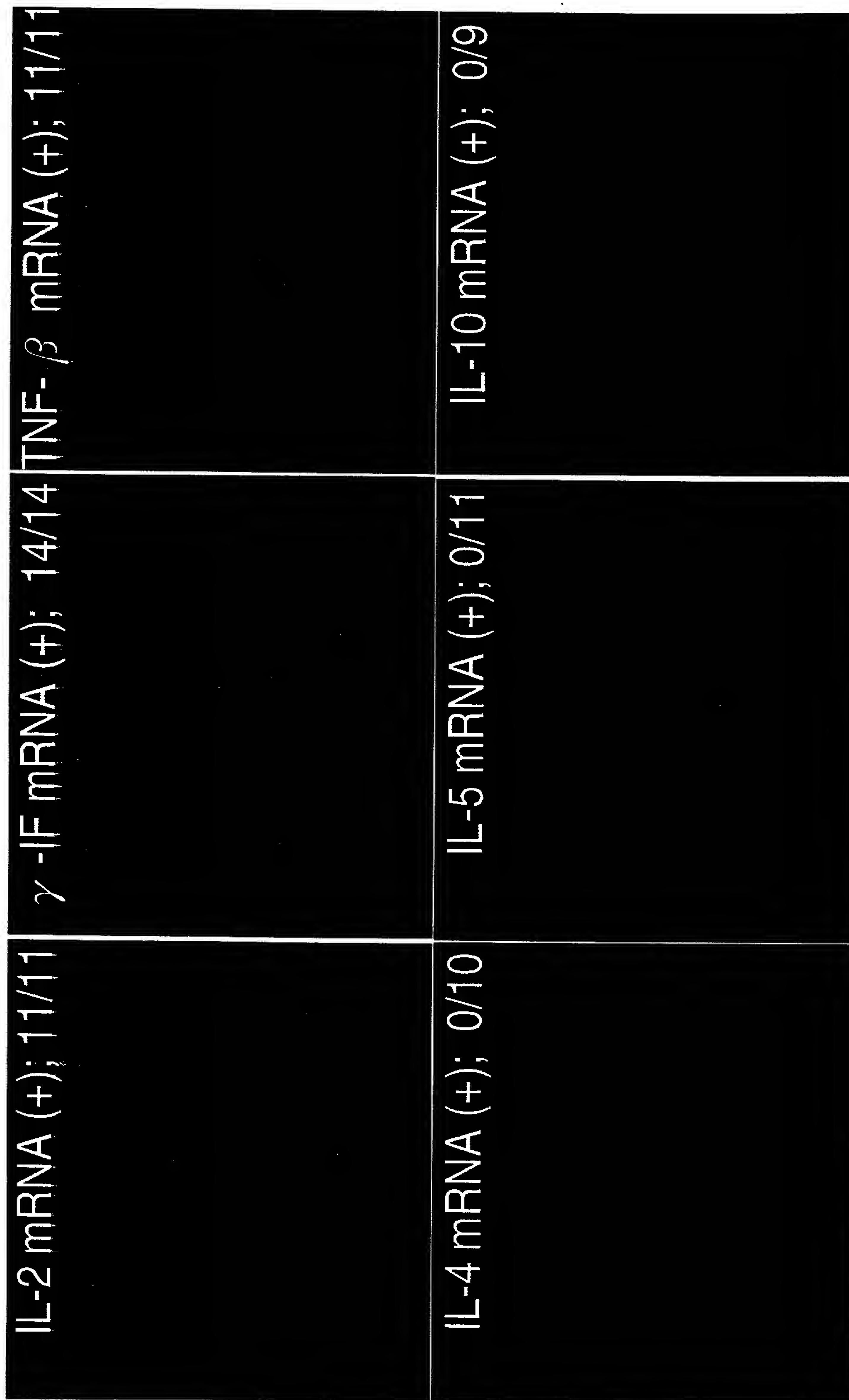


## Fig.86



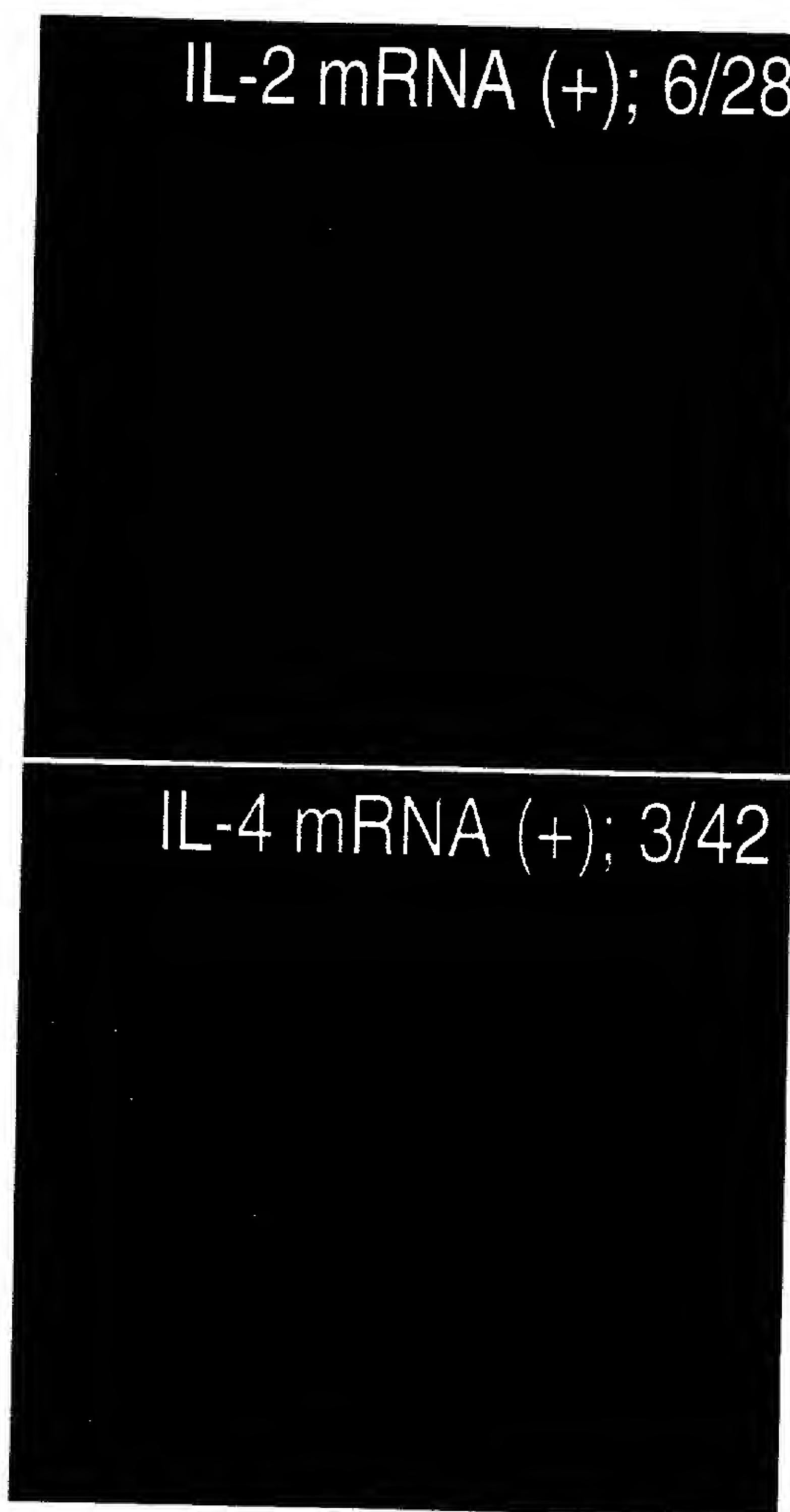
Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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**Fig. 87**

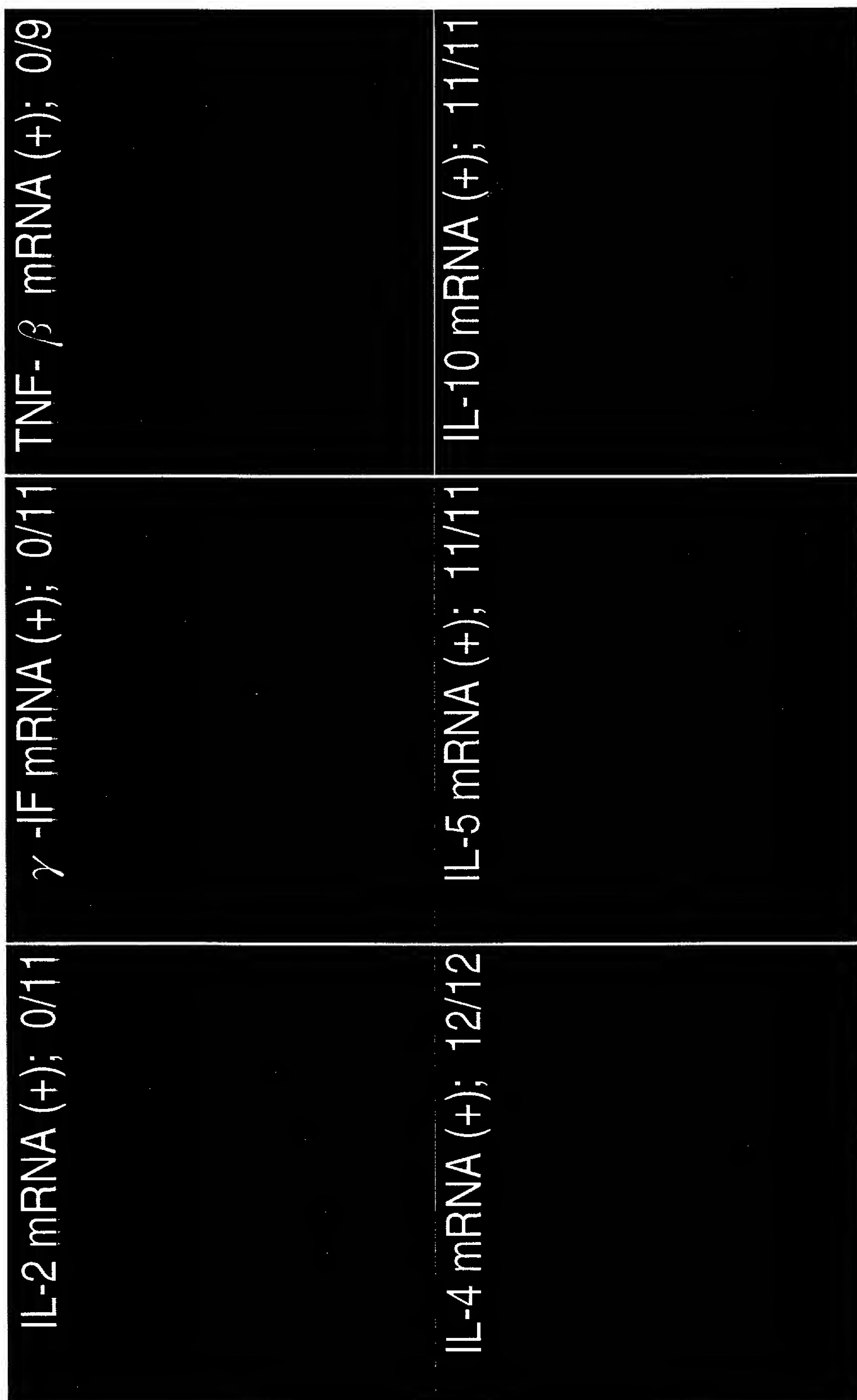


Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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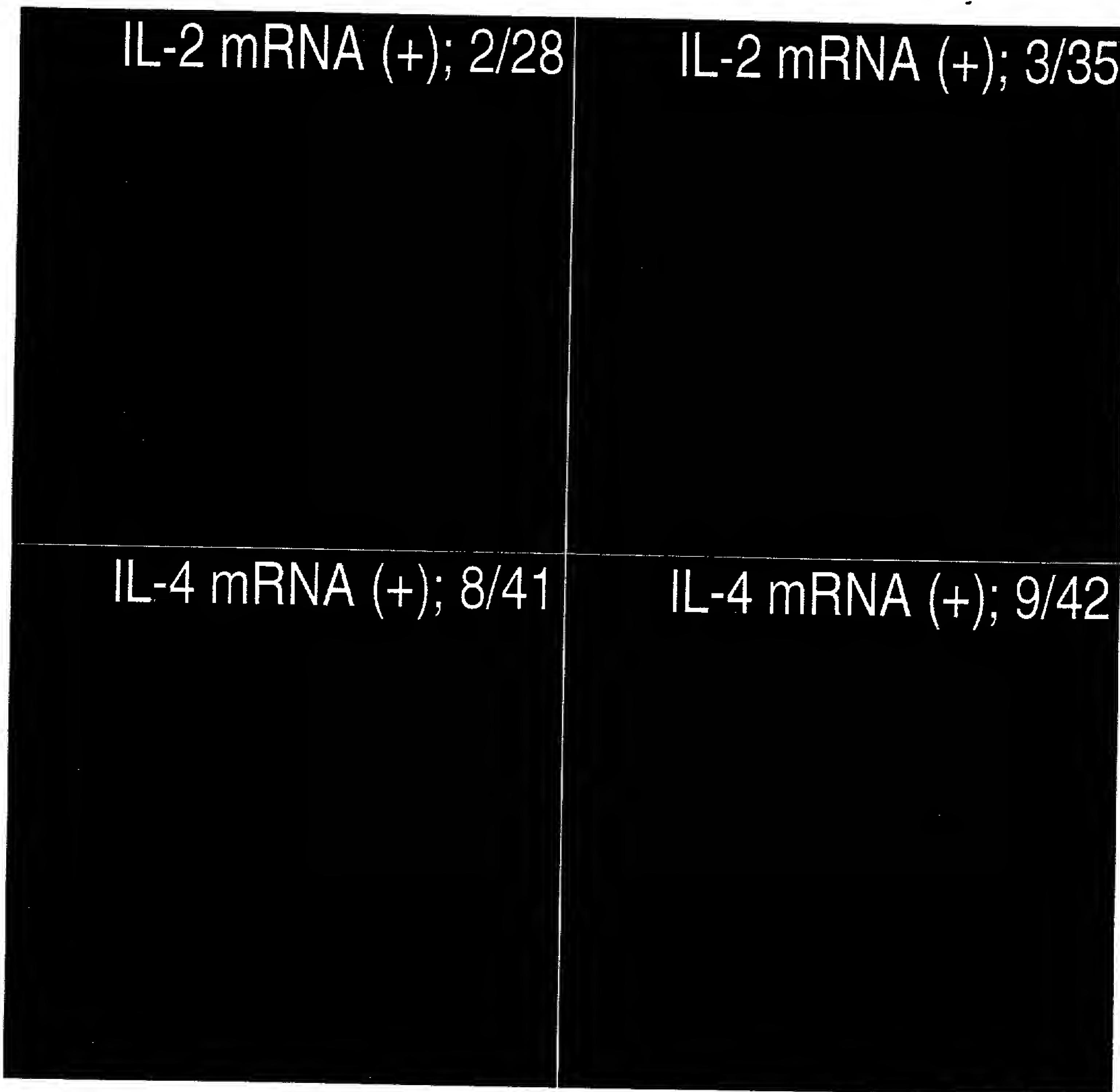
## Fig.88



**Fig. 89**

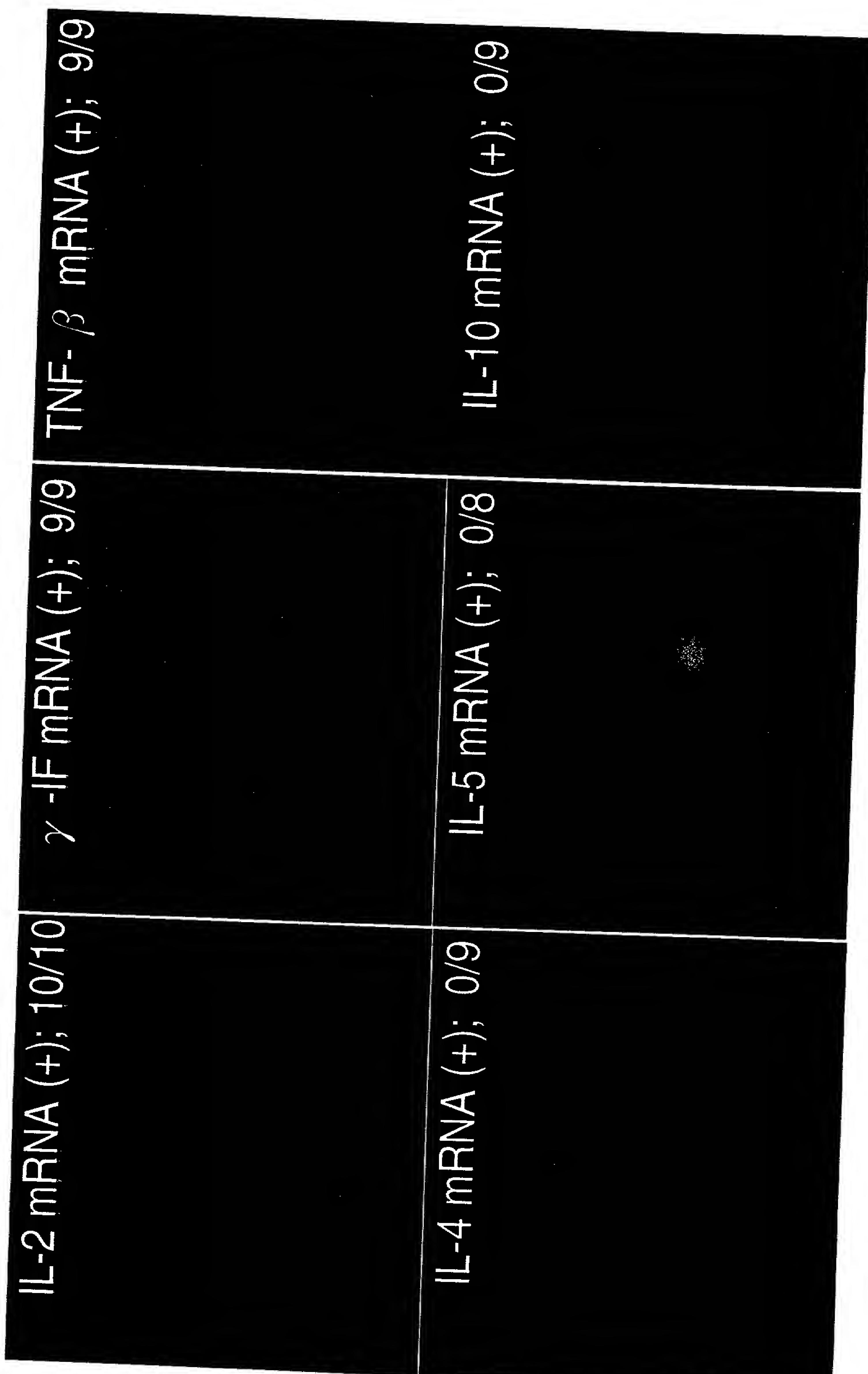


**Fig. 90**

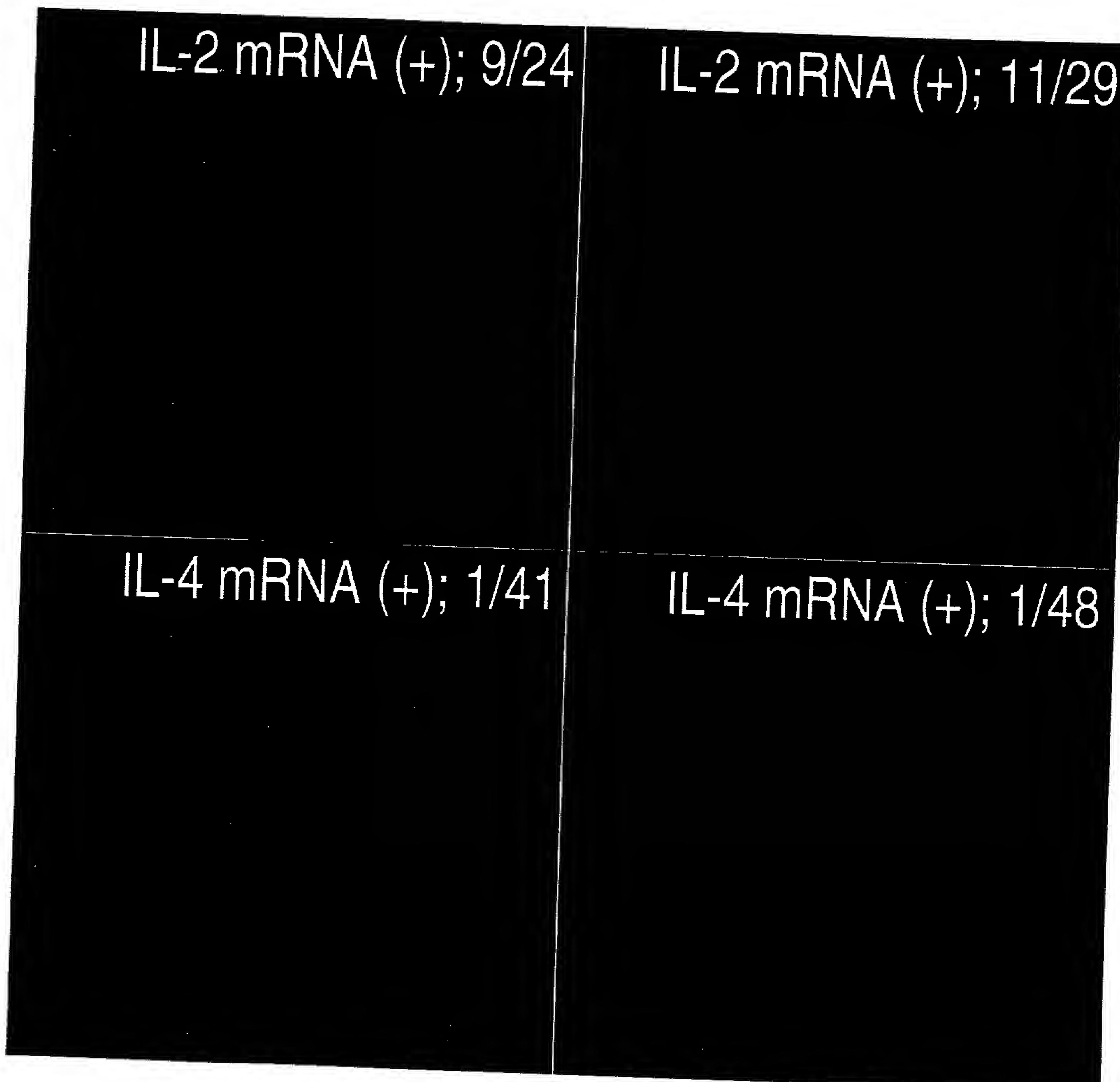


Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
Leydig, Voit & Mayer, Ltd.  
202-737-6770

**Fig. 91**



**Fig.92**



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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202-737-6770

**Fig.93**

IL-2 mRNA (+); 0/7	$\gamma$ -IF mRNA (+); 0/8	TNF- $\beta$ mRNA (+); 0/8	IL-10 mRNA (+); 9/9
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**Fig.94**

